FCC Test Report

Report No.:	RFBDYS-WTW-P20110432C
FCC ID:	TVE-4617T111266
Test Model:	FAP-432F
Series Model:	FortiAP 432Fxxxxxx, FAP-432Fxxxxxx, FORTIAP-432Fxxxxxx (Where "x" can be used as "A-Z", or "0-9", or “-", or blank for software changes or marketing purposes only)
Received Date:	Dec. 22, 2021
Test Date:	Dec. 22, 2021 ~ Jul. 19, 2022
Issued Date:	Sep. 23, 2022
Applicant:	Fortinet, Inc.
Address:	899 Kifer Road Sunnyvale, CA 94086 USA
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location(1):	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan
FCC Registration / Designation Number(1):	788550 / TW0003
Test Location(2):	No. 70, Wenming Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)
FCC Registration / Designation Number(2):	281270 / TW0032

Testing Laboratory
2021

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Release Control Record

Issue No.	Description	Date Issued
RFBDYS-WTW-P20110432C	Original Release	Sep. 23, 2022

1 Certificate of Conformity

Product:	Secured Wireless Access Point
Brand:	Fortinet
Test Model:	FAP-432F
Series Model:	FortiAP 432Fxxxxxx, FAP-432Fxxxxxx, FORTIAP-432Fxxxxxx (Where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)
Sample Status:	Engineering Sample
Applicant:	Fortinet, Inc.
Test Date:	Dec. 22, 2021 ~ Jul. 19, 2022
Standards:	47 CFR FCC Part 15, Subpart C (Section 15.247) ANSI C63.10:2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : Gina Liu , **Date:** Sep. 23, 2022

Gina Liu / Specialist

Approved by : Jeremy Lin , **Date:** Sep. 23, 2022

Jeremy Lin / Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	Pass	Meet the requirement of limit. Minimum passing margin is -14.56dB at 0.42577MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -0.52dB at 2483.50MHz.
15.247(d)	Antenna Port Emission	Pass	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	Pass	Meet the requirement of limit.
15.247(b)	Conducted power	Pass	Meet the requirement of limit.
15.247(e)	Power Spectral Density	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	EUT uses standard N connector (but subject to professional installation).

Note:

1. For 2.4G band compliance with rule 15.247(d) of the band-edge items, the test plots were recorded in Annex A. Test Procedures refer to report 4.1.3.
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.79 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.86 dB
	200MHz ~1000MHz	3.87 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Secured Wireless Access Point
Brand	Fortinet
Test Model	FAP-432F
Series Model	FortiAP 432Fxxxxxx, FAP-432Fxxxxxx, FORTIAP-432Fxxxxxx (Where "x" can be used as "A-Z", or "0-9", or “-", or blank for software changes or marketing purposes only)
Model Difference	Refer to note
Sample Status	Engineering Sample
Power Supply Rating	54Vdc from POE
Modulation Type	CCK, DQPSK, DBPSK for DSSS 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDMA
Modulation Technology	DSSS, OFDM, OFDMA
Transfer Rate	802.11b:11/5.5/2/1Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps 802.11n (HT20/40): up to 600Mbps 802.11ac (VHT20/40): up to 800Mbps 802.11ax: up to 1147.1Mbps
Operating Frequency	2412 ~ 2462MHz
Number of Channel	802.11b, 802.11g, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 11 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 7
Output Power	Mode A (FANT-04ABGN-0606-O-N) CDD Mode: 785.004mW Beamforming Mode: 180.152mW Mode B (FANT-04ABGN-1414-P-N) CDD Mode: 154.6mW Beamforming Mode: 37.203mW Mode C (FANT-04ABGN-8065-P-N) CDD Mode: 626.114mW Beamforming Mode: 148.584mW
Antenna Type	Refer to note
Antenna Connector	N-type Plug
Accessory Device	POE
Cable Supplied	NA

Note:

1. This report is prepared for FCC class II permissive change. The difference compared with the original report (BV CPS report no.: RFBDYS-WTW-P20110432) is adding three antennas. Therefore, the EUT with new antennas were tested and presented in the test report.
2. The following models are provided to this EUT. The model FAP-432F was chosen for final test.

Brand	Model	Description
Fortinet	FAP-432F	Series model for marketing purpose
	FortiAP 432Fxxxxxx, FAP-432Fxxxxxx, FORTIAP-432Fxxxxxx (Where "x" can be used as "A-Z", or "0-9", or “-", or blank for software changes or marketing purposes only)	

3. The EUT incorporates a MIMO function. Physically, the EUT provides 4 completed transmitters and 4 receivers.

Radio	Modulation Mode	Beamforming Mode	TX Function
2G traffic radio (Radio 1)	802.11b	Not Support	4TX
	802.11g	Not Support	4TX
	802.11n (HT20)	Not Support	4TX
	802.11n (HT40)	Not Support	4TX
	802.11ac (VHT20)	Support	4TX
	802.11ac (VHT40)	Support	4TX
	802.11ax (HE20)	Support	4TX
	802.11ax (HE40)	Support	4TX
Scanning radio (Radio 3)	802.11b	Not Support	1TX
	802.11g	Not Support	1TX
	802.11n (HT20)	Not Support	1TX
	802.11n (HT40)	Not Support	1TX

* The bandwidth and modulation are similar for HT20/HT40 on 802.11n mode and VHT20/VHT40 on 802.11ac mode and HE20/HE40 on 802.11ax mode. Therefore the investigated worst case is the representative mode in test report. (Final test mode refer section 3.2.1)

* For 802.11n, CDD mode and Beamforming mode are presented in power output test item. For other test items, CDD mode is the worst case for final tests after pretesting.

4. The EUT consumes power from the following POEs.

POE	
Brand	SENAO
Model	PIN060-54PR
Input Power	100-240Vac, 50-60Hz, 1.5A
Output Power	54V, 1.11A

5. The following antennas were provided to the EUT.

Antenna Type	Dipole
Frequency (MHz)	Gain (dBi)
2400	5.1
2450	5.0
2500	5.5
4900	6.1
5150	6.5
5250	6.4
5350	6.7
5450	7.2
5550	6.6
5650	6.6
5750	7.0
5850	6.9

New antenna (New antennas are for connection to the WLAN_A1/A2/A3/A4 ports only)

Optional Antennas	# Of Ant	Type	Connector	2.4GHz (dBi)	5GHz B1 (dBi)	5GHz B2 (dBi)	5GHz B3 (dBi)	5GHz B4 (dBi)
FANT-04ABGN-0606-O-N	4	Omni	4 N-Type	6	6	6	6	6
FANT-04ABGN-1414-P-N	4	Patch	4 N-Type	14	14	14	14	14
FANT-04ABGN-8065-P-N	4	Patch	4 N-Type	8	6.5	6.5	6.5	6.5

*Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

6. The simultaneous operation mode was determined by client.

No	Mode
1	2G traffic radio (Radio 1) + 5GHz traffic radio (Radio 2) + 5G Scanning radio (Radio 3) + BLE
2	2G traffic radio (Radio 1) + 5GHz traffic radio (Radio 2) + 5G Scanning radio (Radio 3) + Zigbee
3	5GHz traffic radio (Radio 2) + 2G Scanning radio (Radio 3) + BLE
4	5GHz traffic radio (Radio 2) + 2G Scanning radio (Radio 3) + Zigbee

* 5GHz traffic radio (Radio 2) and 5G Scanning radio (Radio 3) cannot transmit in the same band at same time. 2G traffic radio (Radio 1) and 2G Scanning radio (Radio 3) cannot transmit at same time.
* Zigbee and BT technologies cannot transmit at same time.
* Spurious emission of the simultaneous operation has been evaluated and no non-compliance was found.

3.2 Description of Test Modes

11 channels are provided for 802.11b, 802.11g, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

Channel	Frequency	Channel	Frequency
1	2412MHz	7	2442MHz
2	2417MHz	8	2447MHz
3	2422MHz	9	2452MHz
4	2427MHz	10	2457MHz
5	2432MHz	11	2462MHz
6	2437MHz		

7 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
3	2422MHz	7	2442MHz
4	2427MHz	8	2447MHz
5	2432MHz	9	2452MHz
6	2437MHz		

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to				Description
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	EUT + antenna model: FANT-04ABGN-0606-O-N
B	√	√	√	√	EUT + antenna model: FANT-04ABGN-1414-P-N
C	√	√	√	√	EUT + antenna model: FANT-04ABGN-8065-P-N

Where RE≥1G: Radiated Emission above 1GHz & Bandedge Measurement RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission APCM: Antenna Port Conducted Measurement

Note:
1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-axis for mode A, B and Y-axis for mode C**.
2. Radiated emission test (below 1GHz) and power line conducted emission test items chosen the worst maximum power.

Radiated Emission Test (Above 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A, B, C	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
	802.11ax (HE20)	1 to 11	1, 6, 11	OFDMA	MCS0	6.5
	802.11ax (HE40)	3 to 9	3, 6, 9	OFDMA	MCS0	13.5

Radiated Emission Test (Below 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A, C	802.11b	1 to 11	6	DSSS	DBPSK	1.0
B	802.11g	1 to 11	6	OFDM	BPSK	6.0

Power Line Conducted Emission Test:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A, C	802.11b	1 to 11	6	DSSS	DBPSK	1.0
B	802.11g	1 to 11	6	OFDM	BPSK	6.0

Antenna Port Conducted Measurement:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A, B, C	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
	802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
	802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	13.5
	802.11ac (VHT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
	802.11ac (VHT40)	3 to 9	3, 6, 9	OFDM	BPSK	13.5
	802.11ax (HE20)	1 to 11	1, 6, 11	OFDMA	MCS0	6.5
	802.11ax (HE40)	3 to 9	3, 6, 9	OFDMA	MCS0	13.5

Test Condition:

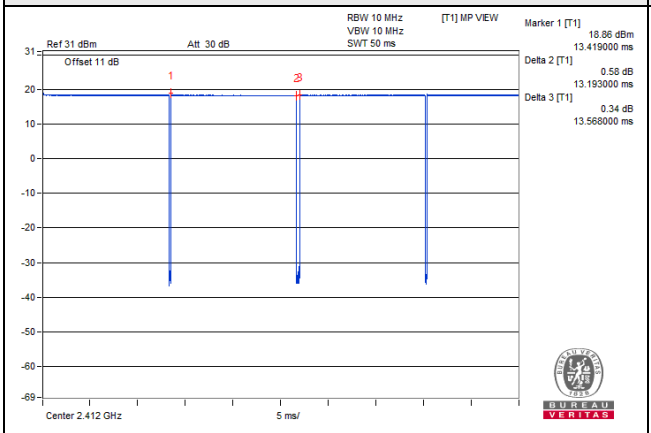
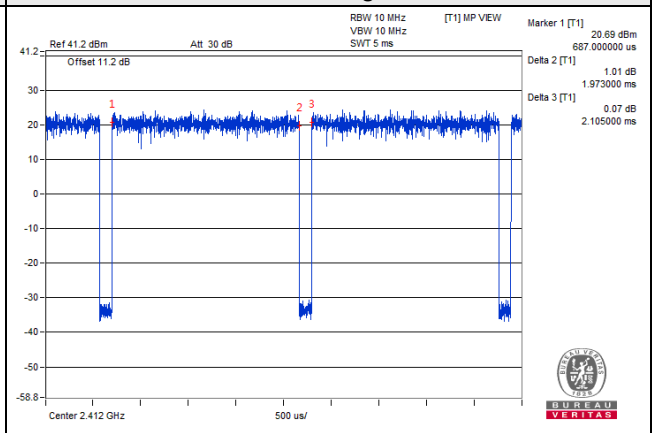
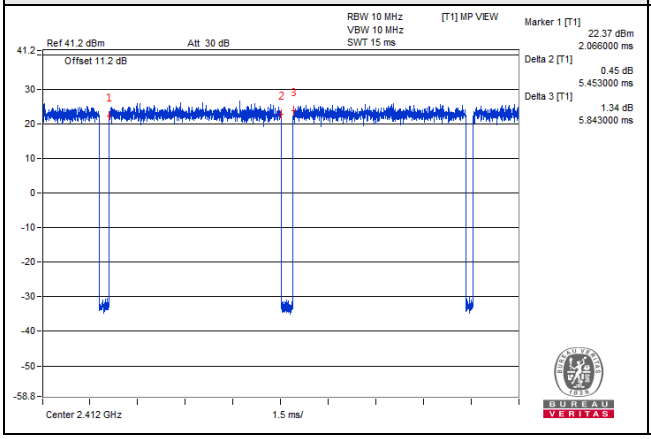
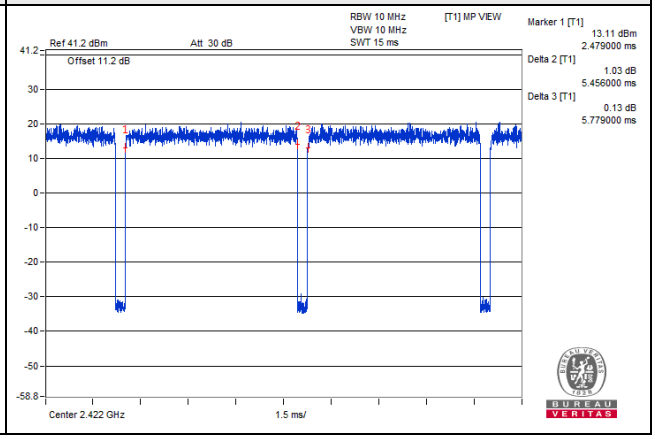
Applicable to	Environmental Conditions	Input Power	Tested by
RE≥1G	22 deg. C, 67% RH	54Vdc	Adair Peng
RE<1G	23 deg. C, 68% RH	54Vdc	Greg Lin
PLC	25 deg. C, 75% RH	54Vdc	Edison Lee
APCM	25 deg. C, 60% RH	54Vdc	Wayne Lin

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is < 98%, duty factor is required.

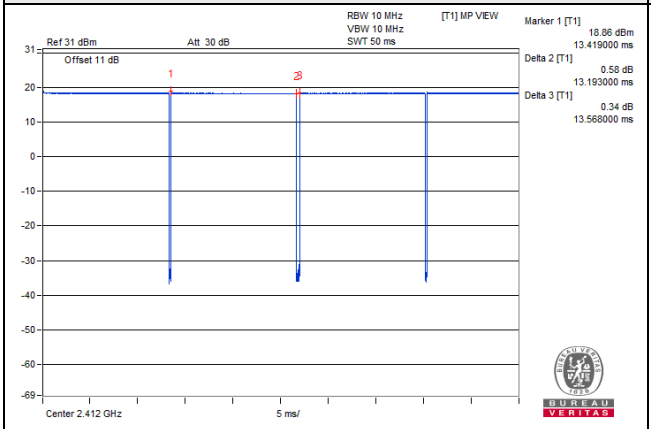
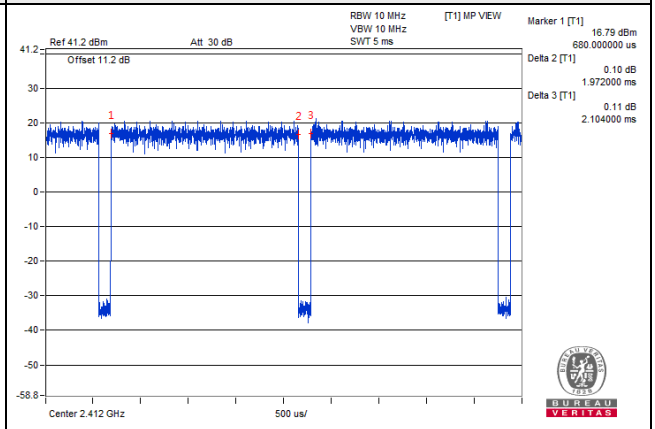
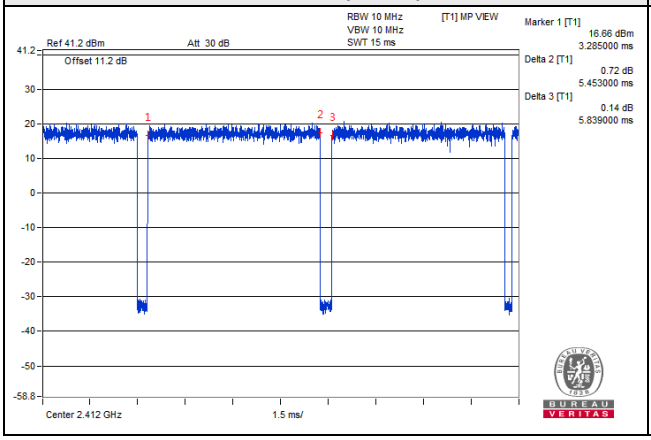
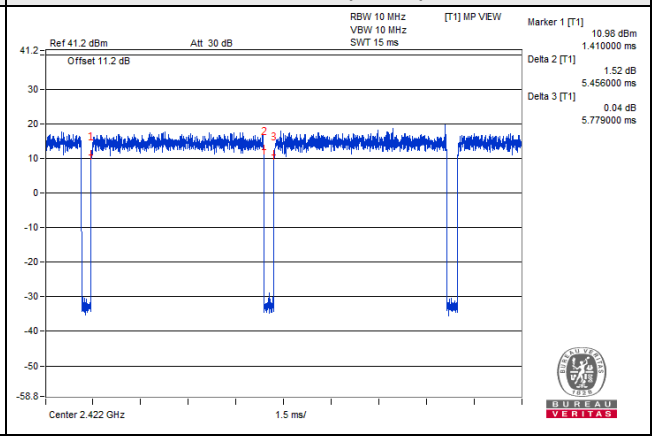
Mode A

802.11b: Duty cycle = 13.193/13.568 = 0.972, Duty factor = 10 * log (1/0.972) = 0.12
802.11g: Duty cycle = 1.973/2.105 = 0.937, Duty factor = 10 * log (1/0.937) = 0.28
802.11ax (HE20): Duty cycle = 5.453/5.843 = 0.933, Duty factor = 10 * log (1/0.933) = 0.30
802.11ax (HE40): Duty cycle = 5.456/5.779 = 0.944, Duty factor = 10 * log (1/0.944) = 0.25

802.11b	802.11g
	
802.11ax (HE20)	802.11ax (HE40)
	

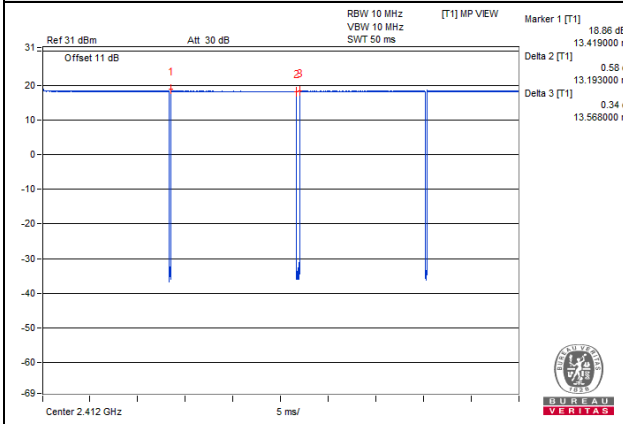
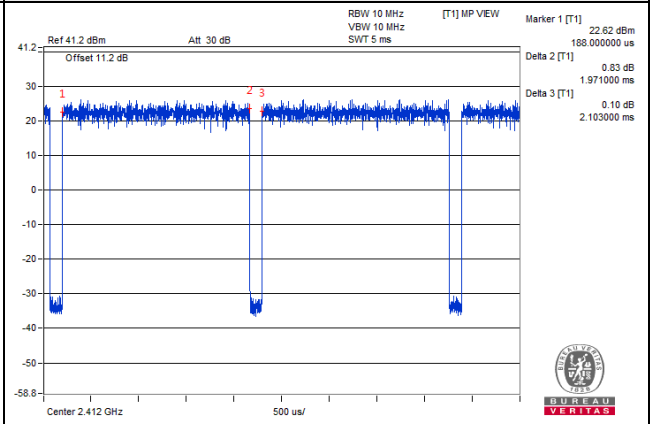
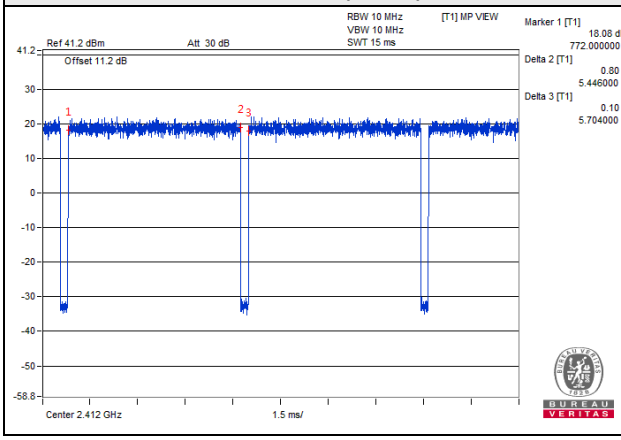
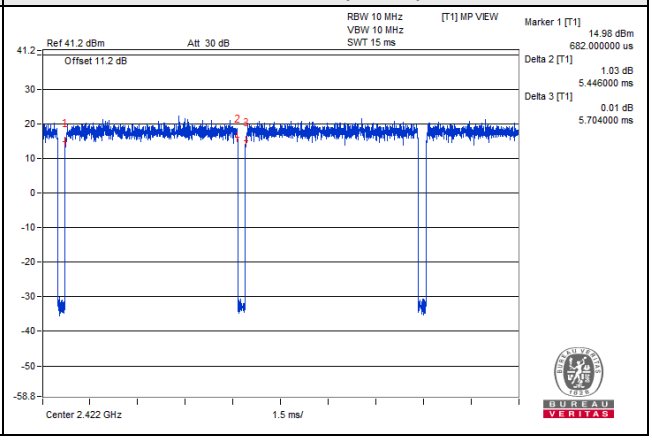
Mode B

802.11b: Duty cycle = 13.193/13.568 = 0.972, Duty factor = 10 * log (1/0.972) = 0.12
802.11g: Duty cycle = 1.972/2.104 = 0.937, Duty factor = 10 * log (1/0.937) = 0.28
802.11ax (HE20): Duty cycle = 5.453/5.839 = 0.934, Duty factor = 10 * log (1/0.934) = 0.30
802.11ax (HE40): Duty cycle = 5.456/5.779 = 0.944, Duty factor = 10 * log (1/0.944) = 0.25

802.11b	802.11g
	
802.11ax (HE20)	**802.11ax (HE40)**
	

Mode C

802.11b: Duty cycle = 13.193/13.568 = 0.972, Duty factor = 10 * log (1/0.972) = 0.12
802.11g: Duty cycle = 1.971/2.103 = 0.937, Duty factor = 10 * log (1/0.937) = 0.28
802.11ax (HE20): Duty cycle = 5.446/5.704 = 0.955, Duty factor = 10 * log (1/0.955) = 0.20
802.11ax (HE40): Duty cycle = 5.446/5.704 = 0.955, Duty factor = 10 * log (1/0.955) = 0.20

802.11b	802.11g
	
802.11ax (HE20)	802.11ax (HE40)
	

3.4 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

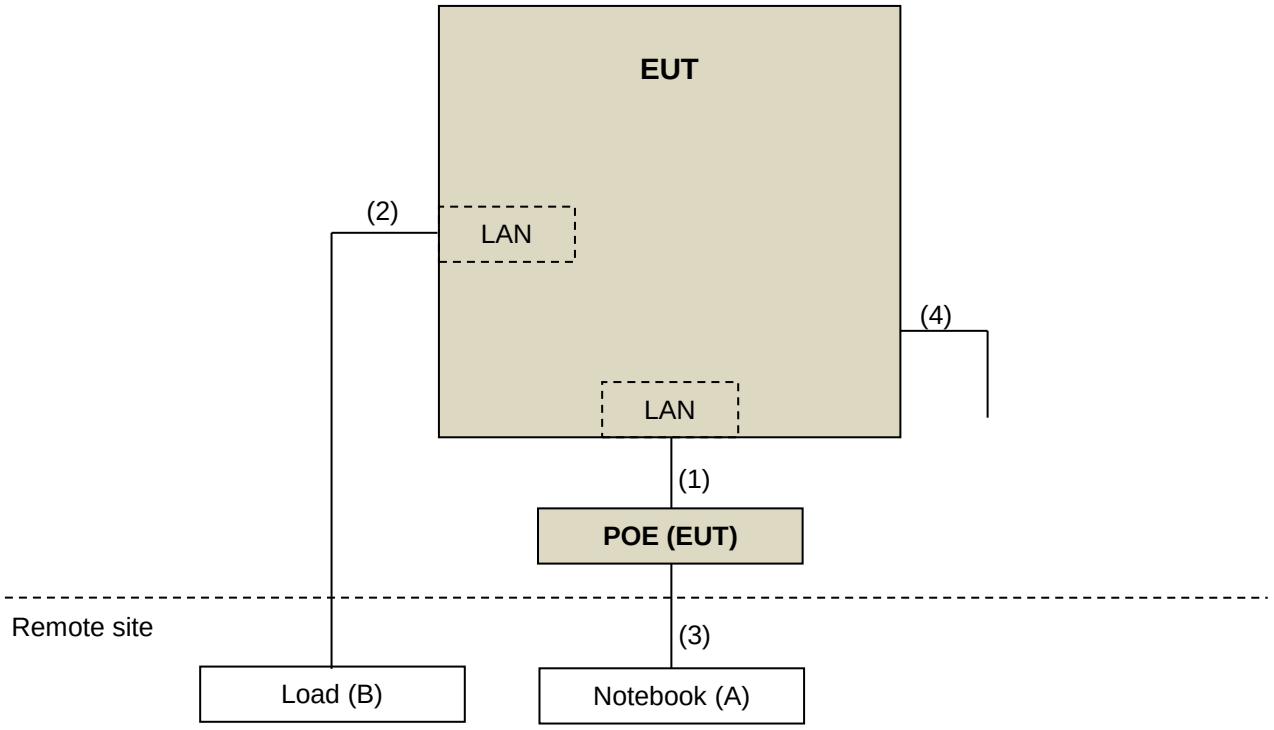
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	Lenovo	20J4 MD A003TW	PF-11H9AK	FCC DoC Approved	-
B.	Load	NA	NA	NA	NA	-

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item A acted as a communication partner to transfer data.

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	LAN	1	1.5	N	0	RJ45, Cat5e
2.	LAN	1	1.5	N	0	RJ45, Cat5e
3.	LAN	1	6	N	0	RJ45, Cat5e
4.	Console	1	1.5	N	0	-

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards and References

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards and references:

Test standard:
FCC Part 15, Subpart C (15.247)
ANSI C63.10:2013

All test items have been performed and recorded as per the above standards.

References Test Guidance:
KDB 558074 D01 15.247 Meas Guidance v05r02
KDB 662911 D01 Multiple Transmitter Output v02r01

All test items have been performed as a reference to the above KDB test guidance.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30dB below the highest level of the desired power:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Note:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver Rohde & Schwarz	N9038A	MY55420137	Apr. 09, 2021	Apr. 08, 2022
			Apr. 27, 2022	Apr. 26, 2023
Spectrum Analyzer KEYSIGHT	N9020B	MY60110440	Dec. 09, 2021	Dec. 08, 2022
BILOG Antenna SCHWARZBECK	VULB9168	9168-1213	Oct. 27, 2021	Oct. 26, 2022
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-563	Nov. 14, 2021	Nov. 13, 2022
HORN Antenna SCHWARZBECK	BBHA 9170	9170-995	Nov. 14, 2021	Nov. 13, 2022
Loop Antenna EMCI	EM-6879	269	Sep. 16, 2021	Sep. 15, 2022
Preamplifier EMCI	EMC330N	980782	Jan. 19, 2021	Jan. 18, 2022
			Jan. 17, 2022	Jan. 16, 2023
Preamplifier EMCI	EMC118A45SE	980808	Dec. 30, 2021	Dec. 29, 2022
Preamplifier EMCI	EMC184045SE	980788	Jan. 19, 2021	Jan. 18, 2022
			Jan. 17, 2022	Jan. 16, 2023
RF signal cable EMCI	EMC104-SM-SM-(9000+2000+1000)	201243+ 201231+ 210102	Jan. 19, 2021	Jan. 18, 2022
			Jan. 17, 2022	Jan. 16, 2023
RF signal cable EMCI	EMCCFD400-NM-NM-(9000+300+500)	201236+ 201235+ 201233	Jan. 19, 2021	Jan. 18, 2022
			Jan. 17, 2022	Jan. 16, 2023
RF signal cable EMCI	EMC101G-KM-KM-(5000+3000+2000)	201260+201257+201254	Jan. 19, 2021	Jan. 18, 2022
			Jan. 17, 2022	Jan. 16, 2023
Software BV ADT	ADT_Radiated_V7.6.15.9.5	NA	NA	NA
Antenna Tower Max-Full	MFT-151SS-0.5T	NA	NA	NA
Turn Table Max-Full	MF-7802BS	NA	NA	NA
Turn Table Controller Max-Full	MF-7802BS	MF780208674	NA	NA
Peak Power Analyzer KEYSIGHT	8990B	MY51000485	Jan. 19, 2021	Jan. 18, 2022
			Jan. 18, 2022	Jan. 17, 2023
Wideband Power Sensor KEYSIGHT	N1923A	MY58190002	May 05, 2021	May 04, 2022
			May 06, 2022	May 05, 2023

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in WM Chamber 8.

4.1.3 Test Procedures

For Radiated emission below 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.

2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.

3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
   Mode A, C
   (802.11b: RBW = 1MHz, VBW = 1kHz; 802.11g: RBW = 1MHz, VBW = 1kHz; 802.11ax (HE20): RBW = 1MHz, VBW = 1kHz; 802.11ax (HE40): RBW = 1MHz, VBW = 1kHz)
   Mode B
   (802.11b: RBW = 1MHz, VBW = 10Hz; 802.11g: RBW = 1MHz, VBW = 1kHz; 802.11ax (HE20): RBW = 1MHz, VBW = 1kHz; 802.11ax (HE40): RBW = 1MHz, VBW = 1kHz)

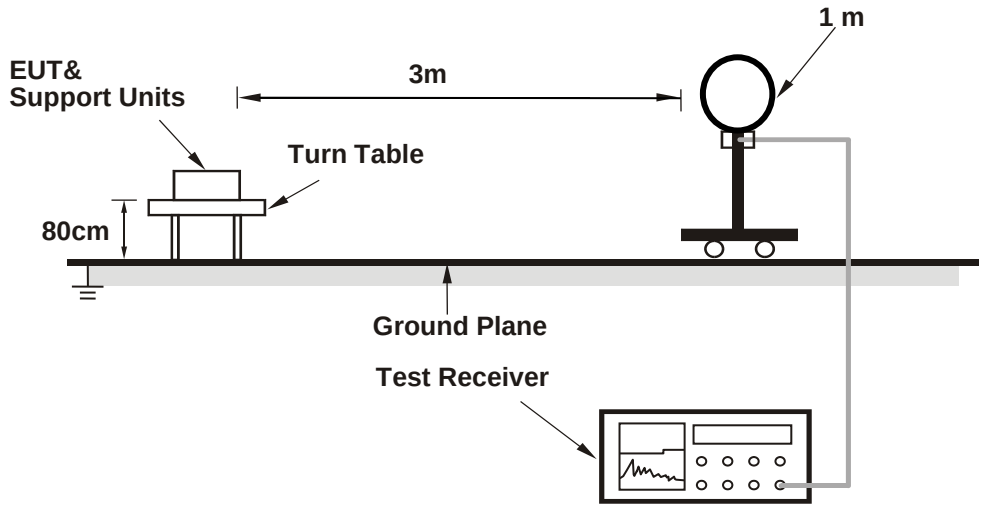
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

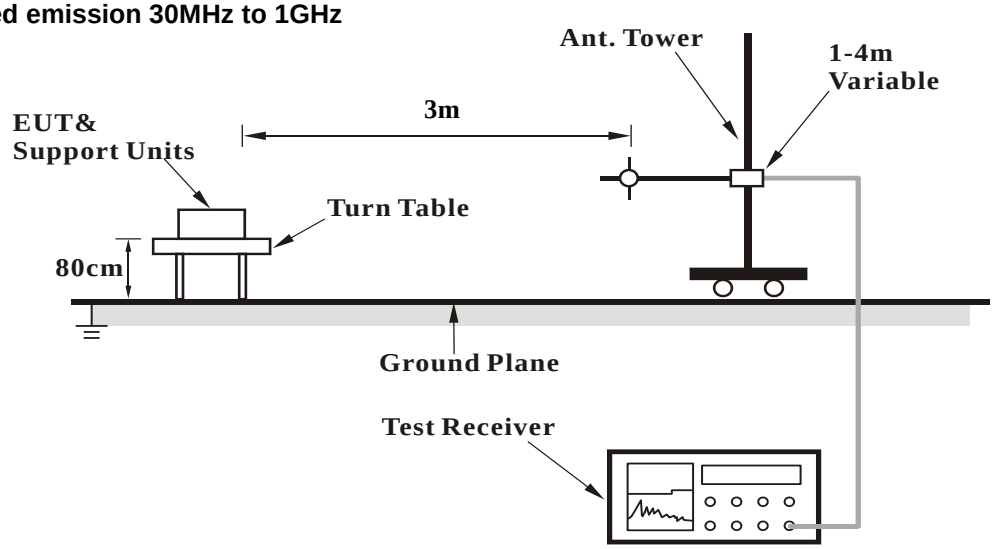
No deviation.

4.1.5 Test Setup

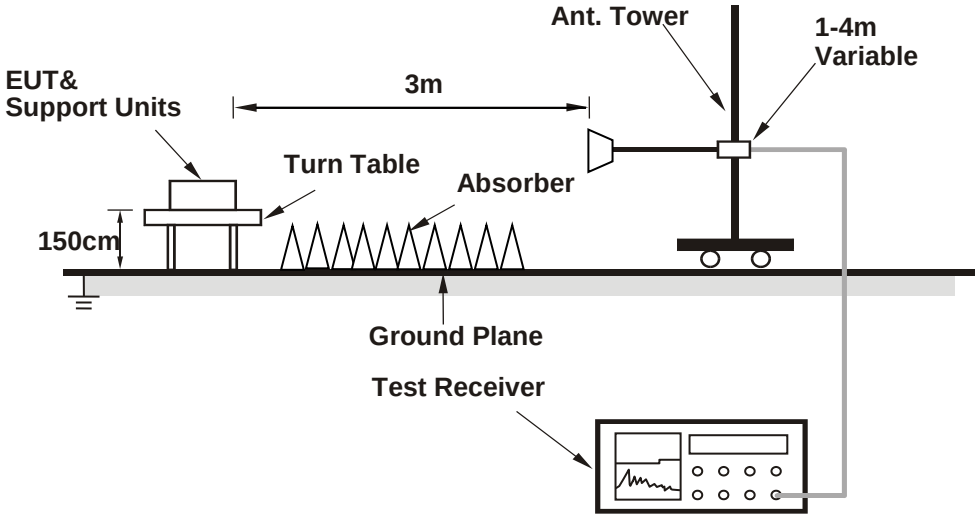
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT Operating Conditions

a. Placed the EUT on the testing table.
b. Prepared a notebook to act as a communication partner and placed it outside of testing area.
c. The communication partner connected with EUT via a RJ45 cable and ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
d. The communication partner sent data to EUT by command "PING".

4.1.7 Test Results

Above 1GHz Data:

Mode A

RF Mode	TX 802.11b	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	57.62 PK	74.00	-16.38	3.17 H	277	25.86	31.76
2	2390.00	44.44 AV	54.00	-9.56	3.17 H	277	12.68	31.76
3	*2412.00	111.40 PK			3.09 H	264	79.68	31.72
4	*2412.00	108.51 AV			3.09 H	264	76.79	31.72
5	4824.00	51.66 PK	74.00	-22.34	2.69 H	281	49.24	2.42
6	4824.00	43.55 AV	54.00	-10.45	2.69 H	281	41.13	2.42
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	58.63 PK	74.00	-15.37	2.53 V	307	26.87	31.76
2	2390.00	46.85 AV	54.00	-7.15	2.53 V	307	15.09	31.76
3	*2412.00	121.02 PK			2.46 V	314	89.30	31.72
4	*2412.00	118.01 AV			2.46 V	314	86.29	31.72
5	4824.00	54.26 PK	74.00	-19.74	2.83 V	114	51.84	2.42
6	4824.00	48.15 AV	54.00	-5.85	2.83 V	114	45.73	2.42

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11b	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	111.13 PK			3.12 H	274	79.46	31.67
2	*2437.00	108.20 AV			3.12 H	274	76.53	31.67
3	4874.00	52.37 PK	74.00	-21.63	2.75 H	288	49.77	2.60
4	4874.00	44.16 AV	54.00	-9.84	2.75 H	288	41.56	2.60
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	121.31 PK			1.79 V	307	89.64	31.67
2	*2437.00	118.29 AV			1.79 V	307	86.62	31.67
3	4874.00	54.53 PK	74.00	-19.47	2.84 V	88	51.93	2.60
4	4874.00	48.45 AV	54.00	-5.55	2.84 V	88	45.85	2.60

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11b	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	110.86 PK			3.07 H	270	79.18	31.68
2	*2462.00	107.92 AV			3.07 H	270	76.24	31.68
3	2483.50	57.56 PK	74.00	-16.44	3.14 H	282	25.83	31.73
4	2483.50	44.79 AV	54.00	-9.21	3.14 H	282	13.06	31.73
5	4924.00	51.73 PK	74.00	-22.27	2.77 H	283	48.98	2.75
6	4924.00	43.79 AV	54.00	-10.21	2.77 H	283	41.04	2.75
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	120.96 PK			1.83 V	307	89.28	31.68
2	*2462.00	118.00 AV			1.83 V	307	86.32	31.68
3	2483.50	60.32 PK	74.00	-13.68	1.76 V	297	28.59	31.73
4	2483.50	48.07 AV	54.00	-5.93	1.76 V	297	16.34	31.73
5	4924.00	54.09 PK	74.00	-19.91	2.84 V	105	51.34	2.75
6	4924.00	48.27 AV	54.00	-5.73	2.84 V	105	45.52	2.75

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11g	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	57.65 PK	74.00	-16.35	3.18 H	269	25.89	31.76
2	2390.00	44.90 AV	54.00	-9.10	3.18 H	269	13.14	31.76
3	*2412.00	111.64 PK			3.07 H	274	79.92	31.72
4	*2412.00	101.57 AV			3.07 H	274	69.85	31.72
5	4824.00	48.68 PK	74.00	-25.32	2.73 H	294	46.26	2.42
6	4824.00	36.56 AV	54.00	-17.44	2.73 H	294	34.14	2.42
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	60.92 PK	74.00	-13.08	1.63 V	300	29.16	31.76
2	2390.00	46.52 AV	54.00	-7.48	1.63 V	300	14.76	31.76
3	*2412.00	121.44 PK			1.72 V	341	89.72	31.72
4	*2412.00	111.45 AV			1.72 V	341	79.73	31.72
5	4824.00	50.60 PK	74.00	-23.40	2.79 V	114	48.18	2.42
6	4824.00	38.51 AV	54.00	-15.49	2.79 V	114	36.09	2.42

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11g	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	113.30 PK			3.14 H	282	81.63	31.67
2	*2437.00	103.25 AV			3.14 H	282	71.58	31.67
3	4874.00	49.42 PK	74.00	-24.58	2.79 H	297	46.82	2.60
4	4874.00	37.16 AV	54.00	-16.84	2.79 H	297	34.56	2.60
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	122.70 PK			1.63 V	297	91.03	31.67
2	*2437.00	113.31 AV			1.63 V	297	81.64	31.67
3	4874.00	51.01 PK	74.00	-22.99	2.75 V	103	48.41	2.60
4	4874.00	38.89 AV	54.00	-15.11	2.75 V	103	36.29	2.60

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11g	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	109.89 PK			3.08 H	274	78.21	31.68
2	*2462.00	100.15 AV			3.08 H	274	68.47	31.68
3	2483.50	57.75 PK	74.00	-16.25	3.03 H	279	26.02	31.73
4	2483.50	45.20 AV	54.00	-8.80	3.03 H	279	13.47	31.73
5	4924.00	48.96 PK	74.00	-25.04	2.73 H	291	46.21	2.75
6	4924.00	36.93 AV	54.00	-17.07	2.73 H	291	34.18	2.75
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	120.04 PK			1.48 V	318	88.36	31.68
2	*2462.00	110.13 AV			1.48 V	318	78.45	31.68
3	2483.50	66.69 PK	74.00	-7.31	1.93 V	326	34.96	31.73
4	2483.50	51.62 AV	54.00	-2.38	1.93 V	326	19.89	31.73
5	4924.00	50.71 PK	74.00	-23.29	2.82 V	108	47.96	2.75
6	4924.00	38.80 AV	54.00	-15.20	2.82 V	108	36.05	2.75

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE20)	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	57.78 PK	74.00	-16.22	3.14 H	264	26.02	31.76
2	2390.00	45.67 AV	54.00	-8.33	3.14 H	264	13.91	31.76
3	*2412.00	114.07 PK			3.04 H	272	82.35	31.72
4	*2412.00	101.10 AV			3.04 H	272	69.38	31.72
5	4824.00	48.79 PK	74.00	-25.21	2.71 H	303	46.37	2.42
6	4824.00	36.66 AV	54.00	-17.34	2.71 H	303	34.24	2.42
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	62.24 PK	74.00	-11.76	1.67 V	334	30.48	31.76
2	2390.00	48.69 AV	54.00	-5.31	1.67 V	334	16.93	31.76
3	*2412.00	124.16 PK			1.85 V	348	92.44	31.72
4	*2412.00	111.18 AV			1.85 V	348	79.46	31.72
5	4824.00	50.96 PK	74.00	-23.04	2.83 V	124	48.54	2.42
6	4824.00	38.85 AV	54.00	-15.15	2.83 V	124	36.43	2.42

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE20)	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	118.70 PK			3.11 H	262	87.03	31.67
2	*2437.00	105.69 AV			3.11 H	262	74.02	31.67
3	4874.00	49.35 PK	74.00	-24.65	2.71 H	294	46.75	2.60
4	4874.00	37.43 AV	54.00	-16.57	2.71 H	294	34.83	2.60
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	128.84 PK			1.74 V	350	97.17	31.67
2	*2437.00	115.76 AV			1.74 V	350	84.09	31.67
3	4874.00	51.43 PK	74.00	-22.57	2.83 V	114	48.83	2.60
4	4874.00	39.34 AV	54.00	-14.66	2.83 V	114	36.74	2.60

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE20)	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	111.76 PK			3.03 H	271	80.08	31.68
2	*2462.00	98.85 AV			3.03 H	271	67.17	31.68
3	2483.50	57.51 PK	74.00	-16.49	2.94 H	267	25.78	31.73
4	2483.50	45.09 AV	54.00	-8.91	2.94 H	267	13.36	31.73
5	4924.00	49.18 PK	74.00	-24.82	2.82 H	301	46.43	2.75
6	4924.00	37.22 AV	54.00	-16.78	2.82 H	301	34.47	2.75
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	122.00 PK			1.69 V	354	90.32	31.68
2	*2462.00	108.79 AV			1.69 V	354	77.11	31.68
3	2483.50	64.68 PK	74.00	-9.32	1.73 V	158	32.95	31.73
4	2483.50	49.14 AV	54.00	-4.86	1.73 V	158	17.41	31.73
5	4924.00	51.29 PK	74.00	-22.71	2.92 V	107	48.54	2.75
6	4924.00	39.12 AV	54.00	-14.88	2.92 V	107	36.37	2.75

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE40)	Channel	CH 3：2422 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	57.34 PK	74.00	-16.66	3.12 H	272	25.58	31.76
2	2390.00	44.85 AV	54.00	-9.15	3.12 H	272	13.09	31.76
3	*2422.00	108.88 PK			3.03 H	276	77.18	31.70
4	*2422.00	96.04 AV			3.03 H	276	64.34	31.70
5	4844.00	48.81 PK	74.00	-25.19	2.78 H	291	46.32	2.49
6	4844.00	36.95 AV	54.00	-17.05	2.78 H	291	34.46	2.49
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	61.73 PK	74.00	-12.27	1.53 V	152	29.97	31.76
2	2390.00	49.43 AV	54.00	-4.57	1.53 V	152	17.67	31.76
3	*2422.00	118.89 PK			1.89 V	149	87.19	31.70
4	*2422.00	106.39 AV			1.89 V	149	74.69	31.70
5	4844.00	50.61 PK	74.00	-23.39	2.87 V	113	48.12	2.49
6	4844.00	38.56 AV	54.00	-15.44	2.87 V	113	36.07	2.49

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE40)	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	110.69 PK			3.00 H	284	79.02	31.67
2	*2437.00	98.24 AV			3.00 H	284	66.57	31.67
3	4874.00	49.05 PK	74.00	-24.95	2.83 H	296	46.45	2.60
4	4874.00	36.97 AV	54.00	-17.03	2.83 H	296	34.37	2.60
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	120.85 PK			1.74 V	351	89.18	31.67
2	*2437.00	108.40 AV			1.74 V	351	76.73	31.67
3	4874.00	50.54 PK	74.00	-23.46	2.93 V	114	47.94	2.60
4	4874.00	38.52 AV	54.00	-15.48	2.93 V	114	35.92	2.60

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE40)	Channel	CH 9：2452 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	107.81 PK			3.02 H	278	76.16	31.65
2	*2452.00	94.99 AV			3.02 H	278	63.34	31.65
3	2483.50	58.96 PK	74.00	-15.04	2.87 H	271	27.23	31.73
4	2483.50	46.62 AV	54.00	-7.38	2.87 H	271	14.89	31.73
5	4904.00	48.13 PK	74.00	-25.87	2.83 H	298	45.43	2.70
6	4904.00	36.97 AV	54.00	-17.03	2.83 H	298	34.27	2.70
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	118.18 PK			1.91 V	148	86.53	31.65
2	*2452.00	105.09 AV			1.91 V	148	73.44	31.65
3	2483.50	65.66 PK	74.00	-8.34	1.86 V	177	33.93	31.73
4	2483.50	52.86 AV	54.00	-1.14	1.86 V	177	21.13	31.73
5	4904.00	50.46 PK	74.00	-23.54	2.93 V	117	47.76	2.70
6	4904.00	38.39 AV	54.00	-15.61	2.93 V	117	35.69	2.70

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Mode B

RF Mode	TX 802.11b	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	57.38 PK	74.00	-16.62	1.30 H	40	25.40	31.98
2	2390.00	43.48 AV	54.00	-10.52	1.30 H	40	11.50	31.98
3	*2412.00	100.86 PK			1.24 H	42	68.90	31.96
4	*2412.00	98.16 AV			1.24 H	42	66.20	31.96
5	4824.00	46.24 PK	74.00	-27.76	1.51 H	44	43.30	2.94
6	4824.00	33.74 AV	54.00	-20.26	1.51 H	44	30.80	2.94
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	57.48 PK	74.00	-16.52	1.59 V	7	25.50	31.98
2	2390.00	45.78 AV	54.00	-8.22	1.59 V	7	13.80	31.98
3	*2412.00	123.46 PK			1.72 V	9	91.50	31.96
4	*2412.00	120.66 AV			1.72 V	9	88.70	31.96
5	4824.00	46.44 PK	74.00	-27.56	1.73 V	11	43.50	2.94
6	4824.00	33.94 AV	54.00	-20.06	1.73 V	11	31.00	2.94

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11b	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	101.53 PK			1.32 H	38	69.60	31.93
2	*2437.00	98.63 AV			1.32 H	38	66.70	31.93
3	4874.00	46.55 PK	74.00	-27.45	1.55 H	45	43.70	2.85
4	4874.00	34.15 AV	54.00	-19.85	1.55 H	45	31.30	2.85
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	123.53 PK			1.60 V	13	91.60	31.93
2	*2437.00	120.73 AV			1.60 V	13	88.80	31.93
3	4874.00	46.85 PK	74.00	-27.15	1.75 V	16	44.00	2.85
4	4874.00	34.25 AV	54.00	-19.75	1.75 V	16	31.40	2.85

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11b	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	101.64 PK			1.43 H	65	69.70	31.94
2	*2462.00	99.04 AV			1.43 H	65	67.10	31.94
3	2487.00	56.69 PK	74.00	-17.31	1.40 H	58	24.70	31.99
4	2487.00	45.69 AV	54.00	-8.31	1.40 H	58	13.70	31.99
5	4924.00	46.74 PK	74.00	-27.26	1.59 H	47	43.90	2.84
6	4924.00	34.14 AV	54.00	-19.86	1.59 H	47	31.30	2.84
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	123.04 PK			1.38 V	20	91.10	31.94
2	*2462.00	120.34 AV			1.38 V	20	88.40	31.94
3	2487.00	59.59 PK	74.00	-14.41	1.40 V	18	27.60	31.99
4	2487.00	49.69 AV	54.00	-4.31	1.40 V	18	17.70	31.99
5	4924.00	46.94 PK	74.00	-27.06	1.76 V	22	44.10	2.84
6	4924.00	34.34 AV	54.00	-19.66	1.76 V	22	31.50	2.84

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11g	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	57.18 PK	74.00	-16.82	1.28 H	41	25.20	31.98
2	2390.00	43.48 AV	54.00	-10.52	1.28 H	41	11.50	31.98
3	*2412.00	103.16 PK			1.20 H	36	71.20	31.96
4	*2412.00	93.76 AV			1.20 H	36	61.80	31.96
5	4824.00	47.44 PK	74.00	-26.56	1.55 H	49	44.50	2.94
6	4824.00	34.44 AV	54.00	-19.56	1.55 H	49	31.50	2.94
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	60.78 PK	74.00	-13.22	1.72 V	0	28.80	31.98
2	2390.00	48.18 AV	54.00	-5.82	1.72 V	0	16.20	31.98
3	*2412.00	125.46 PK			1.53 V	2	93.50	31.96
4	*2412.00	115.76 AV			1.53 V	2	83.80	31.96
5	4824.00	47.54 PK	74.00	-26.46	1.72 V	28	44.60	2.94
6	4824.00	34.74 AV	54.00	-19.26	1.72 V	28	31.80	2.94

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11g	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	103.33 PK			1.33 H	42	71.40	31.93
2	*2437.00	93.73 AV			1.33 H	42	61.80	31.93
3	4874.00	47.35 PK	74.00	-26.65	1.58 H	41	44.50	2.85
4	4874.00	34.75 AV	54.00	-19.25	1.58 H	41	31.90	2.85
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	125.63 PK			1.58 V	1	93.70	31.93
2	*2437.00	115.83 AV			1.58 V	1	83.90	31.93
3	4874.00	47.65 PK	74.00	-26.35	1.79 V	30	44.80	2.85
4	4874.00	34.85 AV	54.00	-19.15	1.79 V	30	32.00	2.85

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11g	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	100.34 PK			1.43 H	72	68.40	31.94
2	*2462.00	90.64 AV			1.43 H	72	58.70	31.94
3	2483.50	57.08 PK	74.00	-16.92	1.33 H	69	25.10	31.98
4	2483.50	45.38 AV	54.00	-8.62	1.33 H	69	13.40	31.98
5	4924.00	47.24 PK	74.00	-26.76	1.58 H	50	44.40	2.84
6	4924.00	34.54 AV	54.00	-19.46	1.58 H	50	31.70	2.84
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	122.44 PK			1.51 V	354	90.50	31.94
2	*2462.00	112.84 AV			1.51 V	354	80.90	31.94
3	2483.50	67.58 PK	74.00	-6.42	1.47 V	350	35.60	31.98
4	2483.50	52.98 AV	54.00	-1.02	1.47 V	350	21.00	31.98
5	4924.00	47.44 PK	74.00	-26.56	1.72 V	28	44.60	2.84
6	4924.00	34.74 AV	54.00	-19.26	1.72 V	28	31.90	2.84

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE20)	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	56.98 PK	74.00	-17.02	1.39 H	45	25.00	31.98
2	2390.00	43.48 AV	54.00	-10.52	1.39 H	45	11.50	31.98
3	*2412.00	105.96 PK			1.39 H	45	74.00	31.96
4	*2412.00	92.96 AV			1.39 H	45	61.00	31.96
5	4824.00	47.44 PK	74.00	-26.56	1.63 H	47	44.50	2.94
6	4824.00	34.44 AV	54.00	-19.56	1.63 H	47	31.50	2.94
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	62.48 PK	74.00	-11.52	1.33 V	11	30.50	31.98
2	2390.00	49.18 AV	54.00	-4.82	1.33 V	11	17.20	31.98
3	*2412.00	127.96 PK			1.43 V	6	96.00	31.96
4	*2412.00	114.86 AV			1.43 V	6	82.90	31.96
5	4824.00	47.64 PK	74.00	-26.36	1.79 V	30	44.70	2.94
6	4824.00	34.64 AV	54.00	-19.36	1.79 V	30	31.70	2.94

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE20)	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	105.93 PK			1.29 H	52	74.00	31.93
2	*2437.00	92.83 AV			1.29 H	52	60.90	31.93
3	4874.00	47.45 PK	74.00	-26.55	1.70 H	42	44.60	2.85
4	4874.00	34.55 AV	54.00	-19.45	1.70 H	42	31.70	2.85
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	128.13 PK			1.39 V	9	96.20	31.93
2	*2437.00	114.93 AV			1.39 V	9	83.00	31.93
3	4874.00	47.75 PK	74.00	-26.25	1.75 V	28	44.90	2.85
4	4874.00	34.85 AV	54.00	-19.15	1.75 V	28	32.00	2.85

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE20)	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	100.74 PK			1.69 H	46	68.80	31.94
2	*2462.00	87.94 AV			1.69 H	46	56.00	31.94
3	2483.50	56.38 PK	74.00	-17.62	1.57 H	50	24.40	31.98
4	2483.50	45.78 AV	54.00	-8.22	1.57 H	50	13.80	31.98
5	4924.00	47.14 PK	74.00	-26.86	1.62 H	46	44.30	2.84
6	4924.00	34.34 AV	54.00	-19.66	1.62 H	46	31.50	2.84
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	122.34 PK			1.74 V	4	90.40	31.94
2	*2462.00	110.04 AV			1.74 V	4	78.10	31.94
3	2483.50	67.78 PK	74.00	-6.22	1.59 V	349	35.80	31.98
4	2483.50	52.88 AV	54.00	-1.12	1.59 V	349	20.90	31.98
5	4924.00	47.54 PK	74.00	-26.46	1.80 V	34	44.70	2.84
6	4924.00	34.74 AV	54.00	-19.26	1.80 V	34	31.90	2.84

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE40)	Channel	CH 3：2422 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	56.68 PK	74.00	-17.32	1.37 H	49	24.70	31.98
2	2390.00	43.28 AV	54.00	-10.72	1.37 H	49	11.30	31.98
3	*2422.00	102.85 PK			1.37 H	49	70.90	31.95
4	*2422.00	89.75 AV			1.37 H	49	57.80	31.95
5	4844.00	47.41 PK	74.00	-26.59	1.66 H	42	44.50	2.91
6	4844.00	34.21 AV	54.00	-19.79	1.66 H	42	31.30	2.91
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	65.78 PK	74.00	-8.22	1.49 V	349	33.80	31.98
2	2390.00	53.18 AV	54.00	-0.82	1.49 V	349	21.20	31.98
3	*2422.00	125.05 PK			1.94 V	354	93.10	31.95
4	*2422.00	111.75 AV			1.94 V	354	79.80	31.95
5	4844.00	47.81 PK	74.00	-26.19	1.72 V	36	44.90	2.91
6	4844.00	34.51 AV	54.00	-19.49	1.72 V	36	31.60	2.91

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE40)	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	102.43 PK			1.45 H	42	70.50	31.93
2	*2437.00	89.63 AV			1.45 H	42	57.70	31.93
3	2483.50	56.68 PK	74.00	-17.32	1.45 H	42	24.70	31.98
4	2483.50	45.68 AV	54.00	-8.32	1.45 H	42	13.70	31.98
5	4874.00	47.55 PK	74.00	-26.45	1.66 H	49	44.70	2.85
6	4874.00	34.35 AV	54.00	-19.65	1.66 H	49	31.50	2.85
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	124.83 PK			1.97 V	357	92.90	31.93
2	*2437.00	111.33 AV			1.97 V	357	79.40	31.93
3	2483.50	68.28 PK	74.00	-5.72	1.23 V	348	36.30	31.98
4	**2483.50**	**53.48 AV**	**54.00**	**-0.52**	**1.23 V**	**348**	**21.50**	**31.98**
5	4874.00	47.85 PK	74.00	-26.15	1.77 V	30	45.00	2.85
6	4874.00	34.55 AV	54.00	-19.45	1.77 V	30	31.70	2.85

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE40)	Channel	CH 9：2452 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	97.72 PK			1.46 H	49	65.80	31.92
2	*2452.00	84.92 AV			1.46 H	49	53.00	31.92
3	2483.50	57.08 PK	74.00	-16.92	1.46 H	49	25.10	31.98
4	2483.50	45.68 AV	54.00	-8.32	1.46 H	49	13.70	31.98
5	4904.00	47.41 PK	74.00	-26.59	1.74 H	52	44.60	2.81
6	4904.00	34.11 AV	54.00	-19.89	1.74 H	52	31.30	2.81
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	119.72 PK			1.48 V	4	87.80	31.92
2	*2452.00	106.62 AV			1.48 V	4	74.70	31.92
3	2483.50	65.28 PK	74.00	-8.72	1.58 V	1	33.30	31.98
4	2483.50	53.28 AV	54.00	-0.72	1.58 V	1	21.30	31.98
5	4904.00	47.61 PK	74.00	-26.39	1.81 V	36	44.80	2.81
6	4904.00	34.31 AV	54.00	-19.69	1.81 V	36	31.50	2.81

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Mode C

RF Mode	TX 802.11b	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	58.62 PK	74.00	-15.38	1.32 H	354	26.86	31.76
2	2390.00	46.59 AV	54.00	-7.41	1.32 H	354	14.83	31.76
3	*2412.00	122.10 PK			1.48 H	5	90.38	31.72
4	*2412.00	119.49 AV			1.48 H	5	87.77	31.72
5	4824.00	49.85 PK	74.00	-24.15	3.84 H	242	47.43	2.42
6	4824.00	41.36 AV	54.00	-12.64	3.84 H	242	38.94	2.42
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	58.84 PK	74.00	-15.16	1.31 V	347	27.08	31.76
2	2390.00	46.85 AV	54.00	-7.15	1.31 V	347	15.09	31.76
3	*2412.00	122.56 PK			1.28 V	352	90.84	31.72
4	*2412.00	119.98 AV			1.28 V	352	88.26	31.72
5	4824.00	53.38 PK	74.00	-20.62	3.04 V	242	50.96	2.42
6	4824.00	48.14 AV	54.00	-5.86	3.04 V	242	45.72	2.42

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11b	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	122.20 PK			1.53 H	359	90.53	31.67
2	*2437.00	119.45 AV			1.53 H	359	87.78	31.67
3	4874.00	50.56 PK	74.00	-23.44	3.99 H	236	47.96	2.60
4	4874.00	42.09 AV	54.00	-11.91	3.99 H	236	39.49	2.60
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	122.59 PK			1.40 V	350	90.92	31.67
2	*2437.00	119.83 AV			1.40 V	350	88.16	31.67
3	4874.00	53.68 PK	74.00	-20.32	2.99 V	235	51.08	2.60
4	4874.00	48.48 AV	54.00	-5.52	2.99 V	235	45.88	2.60

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11b	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	121.67 PK			1.46 H	358	89.99	31.68
2	*2462.00	119.06 AV			1.46 H	358	87.38	31.68
3	2483.50	25.39 PK	74.00	-48.61	1.55 H	347	29.82	-4.43
4	2483.50	16.25 AV	54.00	-37.75	1.55 H	347	20.68	-4.43
5	4924.00	50.10 PK	74.00	-23.90	3.48 H	162	47.35	2.75
6	4924.00	41.57 AV	54.00	-12.43	3.48 H	162	38.82	2.75
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	122.20 PK			1.27 V	351	90.52	31.68
2	*2462.00	119.60 AV			1.27 V	351	87.92	31.68
3	2483.50	61.94 PK	74.00	-12.06	1.54 V	356	30.21	31.73
4	2483.50	52.77 AV	54.00	-1.23	1.54 V	356	21.04	31.73
5	4924.00	53.59 PK	74.00	-20.41	3.03 V	238	50.84	2.75
6	4924.00	48.37 AV	54.00	-5.63	3.03 V	238	45.62	2.75

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11g	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	66.84 PK	74.00	-7.16	2.31 H	29	35.08	31.76
2	2390.00	52.01 AV	54.00	-1.99	2.31 H	29	20.25	31.76
3	*2412.00	123.60 PK			1.48 H	3	91.88	31.72
4	*2412.00	113.23 AV			1.48 H	3	81.51	31.72
5	4824.00	48.70 PK	74.00	-25.30	3.59 H	173	46.28	2.42
6	4824.00	35.50 AV	54.00	-18.50	3.59 H	173	33.08	2.42
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	67.12 PK	74.00	-6.88	2.37 V	21	35.36	31.76
2	2390.00	52.69 AV	54.00	-1.31	2.37 V	21	20.93	31.76
3	*2412.00	123.68 PK			1.48 V	8	91.96	31.72
4	*2412.00	113.36 AV			1.48 V	8	81.64	31.72
5	4824.00	49.94 PK	74.00	-24.06	3.02 V	217	47.52	2.42
6	4824.00	38.89 AV	54.00	-15.11	3.02 V	217	36.47	2.42

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11g	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	123.70 PK			1.47 H	358	92.03	31.67
2	*2437.00	114.20 AV			1.47 H	358	82.53	31.67
3	4874.00	48.73 PK	74.00	-25.27	3.54 H	169	46.13	2.60
4	4874.00	35.81 AV	54.00	-18.19	3.54 H	169	33.21	2.60
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	123.82 PK			1.41 V	5	92.15	31.67
2	*2437.00	114.31 AV			1.41 V	5	82.64	31.67
3	4874.00	51.05 PK	74.00	-22.95	3.05 V	223	48.45	2.60
4	4874.00	39.74 AV	54.00	-14.26	3.05 V	223	37.14	2.60

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11g	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	119.82 PK			1.41 H	356	88.14	31.68
2	*2462.00	110.07 AV			1.41 H	356	78.39	31.68
3	2483.50	68.31 PK	74.00	-5.69	2.08 H	26	36.58	31.73
4	2483.50	51.92 AV	54.00	-2.08	2.08 H	26	20.19	31.73
5	4924.00	48.83 PK	74.00	-25.17	3.47 H	172	46.08	2.75
6	4924.00	35.78 AV	54.00	-18.22	3.47 H	172	33.03	2.75
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	120.05 PK			1.58 V	9	88.37	31.68
2	*2462.00	110.27 AV			1.58 V	9	78.59	31.68
3	2483.50	68.86 PK	74.00	-5.14	1.45 V	8	37.13	31.73
4	2483.50	52.99 AV	54.00	-1.01	1.45 V	8	21.26	31.73
5	4924.00	49.27 PK	74.00	-24.73	3.12 V	228	46.52	2.75
6	4924.00	38.22 AV	54.00	-15.78	3.12 V	228	35.47	2.75

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE20)	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	68.30 PK	74.00	-5.70	1.64 H	4	36.54	31.76
2	2390.00	52.28 AV	54.00	-1.72	1.64 H	4	20.52	31.76
3	*2412.00	124.84 PK			1.39 H	7	93.12	31.72
4	*2412.00	111.78 AV			1.39 H	7	80.06	31.72
5	4824.00	48.51 PK	74.00	-25.49	3.58 H	178	46.09	2.42
6	4824.00	35.70 AV	54.00	-18.30	3.58 H	178	33.28	2.42
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	68.77 PK	74.00	-5.23	1.43 V	339	37.01	31.76
2	2390.00	52.73 AV	54.00	-1.27	1.43 V	339	20.97	31.76
3	*2412.00	125.35 PK			1.48 V	358	93.63	31.72
4	*2412.00	112.24 AV			1.48 V	358	80.52	31.72
5	4824.00	48.99 PK	74.00	-25.01	2.98 V	246	46.57	2.42
6	4824.00	37.94 AV	54.00	-16.06	2.98 V	246	35.52	2.42

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE20)	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	127.03 PK			1.52 H	2	95.36	31.67
2	*2437.00	113.91 AV			1.52 H	2	82.24	31.67
3	4874.00	49.14 PK	74.00	-24.86	3.62 H	163	46.54	2.60
4	4874.00	35.89 AV	54.00	-18.11	3.62 H	163	33.29	2.60
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	127.54 PK			1.58 V	357	95.87	31.67
2	*2437.00	114.10 AV			1.58 V	357	82.43	31.67
3	4874.00	50.08 PK	74.00	-23.92	2.93 V	235	47.48	2.60
4	4874.00	39.03 AV	54.00	-14.97	2.93 V	235	36.43	2.60

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE20)	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	119.51 PK			1.49 H	357	87.83	31.68
2	*2462.00	106.44 AV			1.49 H	357	74.76	31.68
3	2483.50	68.05 PK	74.00	-5.95	1.55 H	351	36.32	31.73
4	2483.50	52.20 AV	54.00	-1.80	1.55 H	351	20.47	31.73
5	4924.00	48.86 PK	74.00	-25.14	3.52 H	170	46.11	2.75
6	4924.00	35.87 AV	54.00	-18.13	3.52 H	170	33.12	2.75
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	120.19 PK			1.53 V	353	88.51	31.68
2	*2462.00	106.80 AV			1.53 V	353	75.12	31.68
3	2483.50	68.39 PK	74.00	-5.61	1.55 V	2	36.66	31.73
4	2483.50	52.67 AV	54.00	-1.33	1.55 V	2	20.94	31.73
5	4924.00	49.18 PK	74.00	-24.82	3.12 V	229	46.43	2.75
6	4924.00	38.12 AV	54.00	-15.88	3.12 V	229	35.37	2.75

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE40)	Channel	CH 3：2422 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	65.92 PK	74.00	-8.08	1.58 H	355	34.16	31.76
2	2390.00	52.54 AV	54.00	-1.46	1.58 H	355	20.78	31.76
3	*2422.00	119.34 PK			1.44 H	2	87.64	31.70
4	*2422.00	106.01 AV			1.44 H	2	74.31	31.70
5	4844.00	48.61 PK	74.00	-25.39	3.51 H	165	46.12	2.49
6	4844.00	35.76 AV	54.00	-18.24	3.51 H	165	33.27	2.49
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	66.03 PK	74.00	-7.97	1.92 V	358	34.27	31.76
2	2390.00	52.62 AV	54.00	-1.38	1.92 V	358	20.86	31.76
3	*2422.00	119.49 PK			1.60 V	1	87.79	31.70
4	*2422.00	106.14 AV			1.60 V	1	74.44	31.70
5	4844.00	49.32 PK	74.00	-24.68	3.11 V	234	46.83	2.49
6	4844.00	37.75 AV	54.00	-16.25	3.11 V	234	35.26	2.49

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE40)	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	123.34 PK			1.52 H	355	91.67	31.67
2	*2437.00	109.71 AV			1.52 H	355	78.04	31.67
3	2483.50	68.69 PK	74.00	-5.31	1.42 H	3	36.96	31.73
4	2483.50	52.80 AV	54.00	-1.20	1.42 H	3	21.07	31.73
5	4874.00	48.64 PK	74.00	-25.36	3.56 H	167	46.04	2.60
6	4874.00	35.72 AV	54.00	-18.28	3.56 H	167	33.12	2.60
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	123.52 PK			1.61 V	1	91.85	31.67
2	*2437.00	109.90 AV			1.61 V	1	78.23	31.67
3	2483.50	68.76 PK	74.00	-5.24	2.03 V	5	37.03	31.73
4	2483.50	52.87 AV	54.00	-1.13	2.03 V	5	21.14	31.73
5	4874.00	48.98 PK	74.00	-25.02	3.22 V	231	46.38	2.60
6	4874.00	37.83 AV	54.00	-16.17	3.22 V	231	35.23	2.60

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE40)	Channel	CH 9：2452 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	117.10 PK			1.57 H	349	85.45	31.65
2	*2452.00	104.02 AV			1.57 H	349	72.37	31.65
3	2483.50	65.70 PK	74.00	-8.30	1.43 H	357	33.97	31.73
4	2483.50	52.62 AV	54.00	-1.38	1.43 H	357	20.89	31.73
5	4904.00	48.73 PK	74.00	-25.27	3.61 H	177	46.03	2.70
6	4904.00	35.74 AV	54.00	-18.26	3.61 H	177	33.04	2.70
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	117.28 PK			1.23 V	352	85.63	31.65
2	*2452.00	104.19 AV			1.23 V	352	72.54	31.65
3	2483.50	65.85 PK	74.00	-8.15	1.45 V	325	34.12	31.73
4	2483.50	52.94 AV	54.00	-1.06	1.45 V	325	21.21	31.73
5	4904.00	49.08 PK	74.00	-24.92	3.16 V	227	46.38	2.70
6	4904.00	37.94 AV	54.00	-16.06	3.16 V	227	35.24	2.70

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Below 1GHz worst-case data:

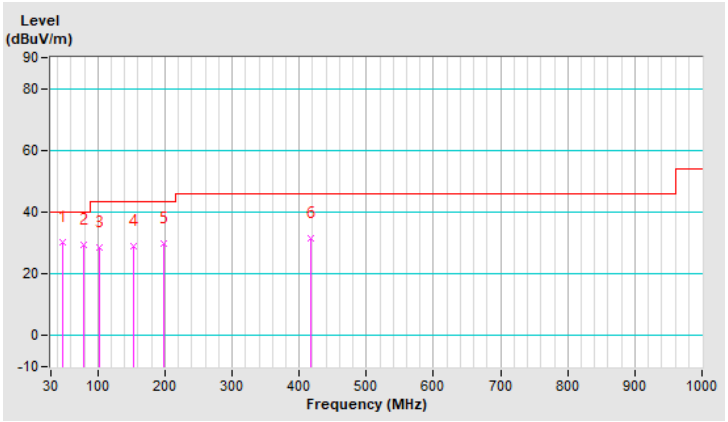
Mode A

RF Mode	TX 802.11b	Channel	CH 6：2437 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	46.87	30.27 QP	40.00	-9.73	2.00 H	150	48.43	-18.16
2	79.20	29.38 QP	40.00	-10.62	2.00 H	261	52.29	-22.91
3	103.10	28.61 QP	43.50	-14.89	2.00 H	120	50.77	-22.16
4	152.30	28.78 QP	43.50	-14.72	1.51 H	158	46.80	-18.02
5	198.70	29.68 QP	43.50	-13.82	2.00 H	157	51.36	-21.68
6	416.59	31.53 QP	46.00	-14.47	1.01 H	120	46.33	-14.80

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

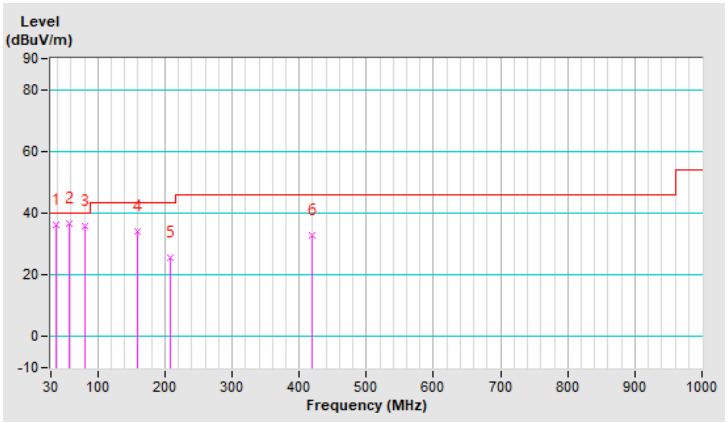


RF Mode	TX 802.11b	Channel	CH 6：2437 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	38.43	36.17 QP	40.00	-3.83	1.49 V	328	54.88	-18.71
2	58.12	36.82 QP	40.00	-3.18	1.00 V	274	55.52	-18.70
3	80.61	35.84 QP	40.00	-4.16	1.00 V	258	59.12	-23.28
4	159.33	34.27 QP	43.50	-9.23	1.00 V	286	52.28	-18.01
5	208.54	25.66 QP	43.50	-17.84	1.00 V	299	47.43	-21.77
6	419.41	32.95 QP	46.00	-13.05	1.49 V	87	47.63	-14.68

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



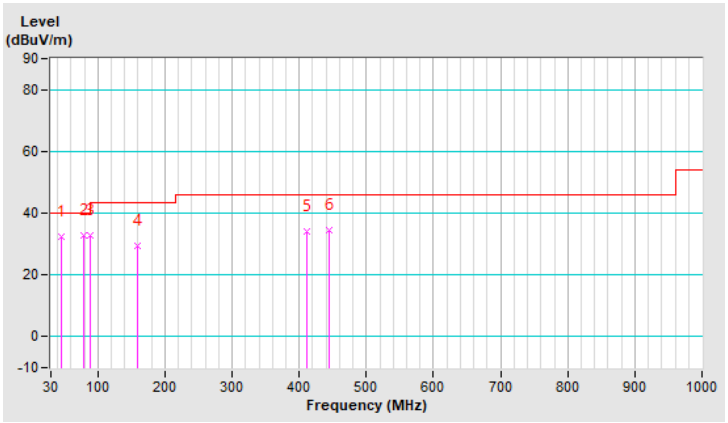
Mode B

RF Mode	TX 802.11g	Channel	CH 6：2437 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	45.46	32.20 QP	40.00	-7.80	2.00 H	139	50.31	-18.11
2	79.20	32.91 QP	40.00	-7.09	2.00 H	257	55.82	-22.91
3	89.04	32.96 QP	43.50	-10.54	2.00 H	158	56.98	-24.02
4	159.33	29.56 QP	43.50	-13.94	2.00 H	146	47.57	-18.01
5	410.97	34.22 QP	46.00	-11.78	1.01 H	337	49.17	-14.95
6	444.71	34.68 QP	46.00	-11.32	2.00 H	168	48.42	-13.74

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

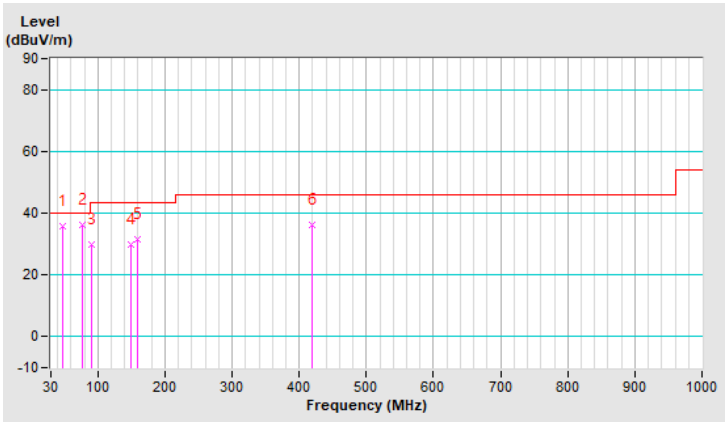


RF Mode	TX 802.11g	Channel	CH 6：2437 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	46.87	35.96 QP	40.00	-4.04	1.49 V	273	54.12	-18.16
2	77.80	36.26 QP	40.00	-3.74	1.49 V	275	58.82	-22.56
3	90.45	29.86 QP	43.50	-13.64	1.00 V	262	53.86	-24.00
4	149.49	30.00 QP	43.50	-13.50	1.00 V	141	48.05	-18.05
5	159.33	31.54 QP	43.50	-11.96	1.00 V	334	49.55	-18.01
6	419.41	36.23 QP	46.00	-9.77	1.49 V	217	50.91	-14.68

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



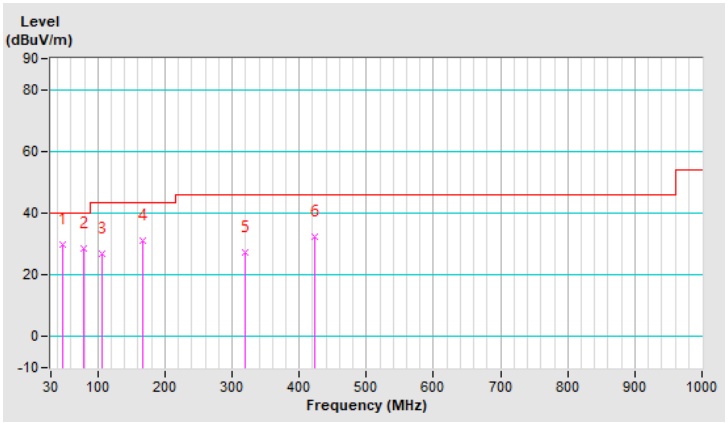
Mode C

RF Mode	TX 802.11b	Channel	CH 6：2437 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	48.28	29.69 QP	40.00	-10.31	2.00 H	239	47.76	-18.07
2	79.20	28.52 QP	40.00	-11.48	2.00 H	258	51.43	-22.91
3	105.91	26.94 QP	43.50	-16.56	2.00 H	138	48.71	-21.77
4	166.36	30.94 QP	43.50	-12.56	2.00 H	180	49.24	-18.30
5	319.59	27.31 QP	46.00	-18.69	1.49 H	345	44.33	-17.02
6	423.62	32.18 QP	46.00	-13.82	1.00 H	18	46.71	-14.53

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

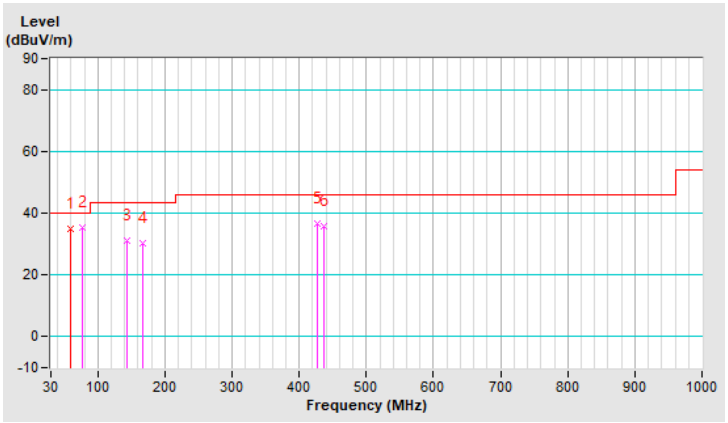


RF Mode	TX 802.11b	Channel	CH 6：2437 MHz
Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	58.97	34.93 QP	40.00	-5.07	1.00 V	327	53.46	-18.53
2	77.80	35.18 QP	40.00	-4.82	1.49 V	281	57.74	-22.56
3	143.87	30.96 QP	43.50	-12.54	1.00 V	177	49.23	-18.27
4	166.36	30.36 QP	43.50	-13.14	1.00 V	346	48.66	-18.30
5	427.84	36.45 QP	46.00	-9.55	1.00 V	264	50.84	-14.39
6	437.68	35.67 QP	46.00	-10.33	1.00 V	258	49.60	-13.93

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESR3	102412	Jan. 22, 2022	Jan. 21, 2023
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond2-01	Sep. 04, 2021	Sep. 03, 2022
LISN/AMN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Feb. 17, 2022	Feb. 16, 2023
LISN/AMN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Sep. 17, 2021	Sep. 16, 2022
Software ADT	BV ADT_Cond_ V7.3.7.4	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Shielded Room 2 (Conduction 2).
3. The VCCI Site Registration No. is C-12047.

4.2.3 Test Procedures

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

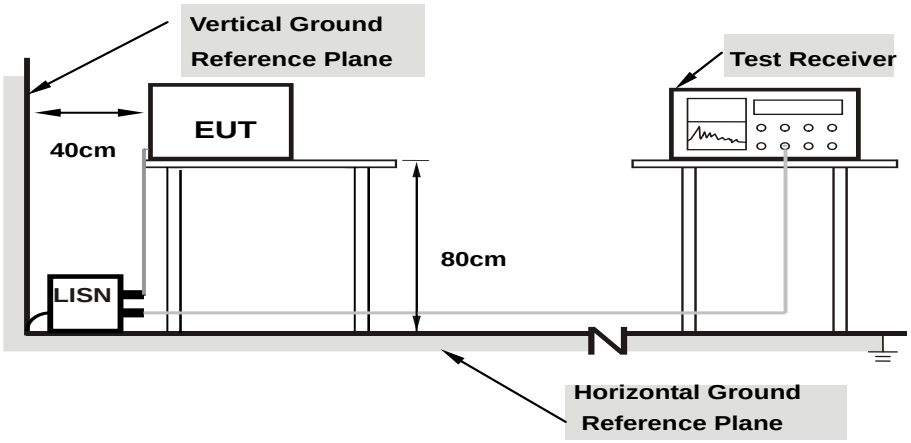
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

Note: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT Operating Conditions

Same as 4.1.6.

4.2.7 Test Results

Worst-case data:

Mode A

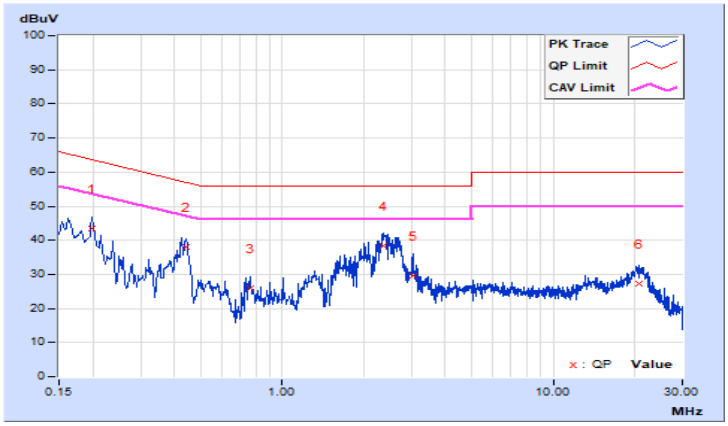
802.11b

Frequency Range	150kHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	25°C, 75% RH
Tested by	Edison Lee	**Test Date**	2022/4/19

Phase Of Power : Line (L)										
No	**Frequency (MHz)**	**Correction Factor (dB)**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
			Q.P.	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	0.19800	10.16	33.27	22.20	43.43	32.36	63.69	53.69	-20.26	-21.33
2	0.44177	10.24	27.84	21.87	38.08	32.11	57.03	47.03	-18.95	-14.92
3	0.76200	10.28	15.48	8.58	25.76	18.86	56.00	46.00	-30.24	-27.14
4	2.37800	10.38	27.97	19.07	38.35	29.45	56.00	46.00	-17.65	-16.55
5	3.04200	10.39	19.32	9.63	29.71	20.02	56.00	46.00	-26.29	-25.98
6	20.81000	10.59	16.53	8.87	27.12	19.46	60.00	50.00	-32.88	-30.54

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

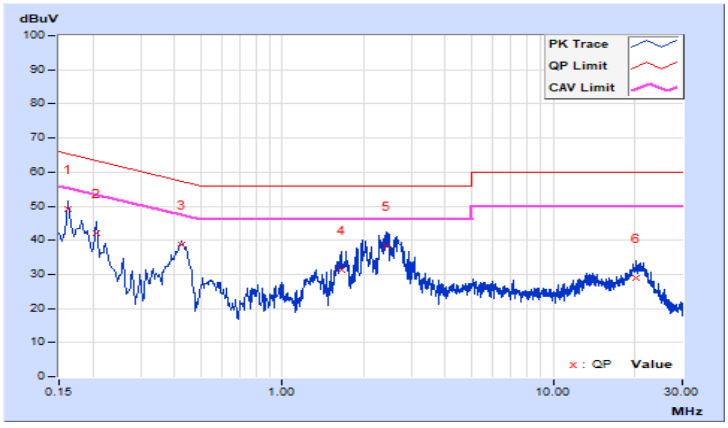


Frequency Range	150kHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	25°C, 75% RH
Tested by	Edison Lee	**Test Date**	2022/4/19

Phase Of Power : Neutral (N)										
No	**Frequency (MHz)**	**Correction Factor (dB)**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
			Q.P.	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	0.16200	10.15	39.07	27.32	49.22	37.47	65.36	55.36	-16.14	-17.89
2	0.20600	10.19	31.76	21.42	41.95	31.61	63.37	53.37	-21.42	-21.76
3	**0.42577**	**10.26**	**28.35**	**22.51**	**38.61**	**32.77**	**57.33**	**47.33**	**-18.72**	**-14.56**
4	1.66200	10.34	20.82	14.55	31.16	24.89	56.00	46.00	-24.84	-21.11
5	2.43800	10.37	27.86	18.22	38.23	28.59	56.00	46.00	-17.77	-17.41
6	20.35000	10.74	18.25	11.50	28.99	22.24	60.00	50.00	-31.01	-27.76

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



Mode B

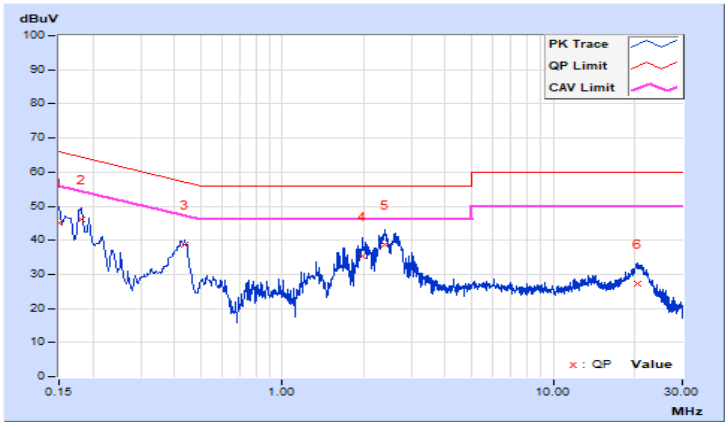
802.11g

Frequency Range	150kHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	25°C, 75% RH
Tested by	Edison Lee	**Test Date**	2022/4/19

Phase Of Power : Line (L)										
No	**Frequency (MHz)**	**Correction Factor (dB)**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
			Q.P.	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	0.15000	10.13	35.01	28.78	45.14	38.91	66.00	56.00	-20.86	-17.09
2	0.18180	10.15	36.08	25.27	46.23	35.42	64.40	54.40	-18.17	-18.98
3	0.43714	10.24	28.45	21.78	38.69	32.02	57.12	47.12	-18.43	-15.10
4	1.98600	10.37	24.86	17.13	35.23	27.50	56.00	46.00	-20.77	-18.50
5	2.38600	10.38	28.27	19.37	38.65	29.75	56.00	46.00	-17.35	-16.25
6	20.45000	10.60	16.73	9.49	27.33	20.09	60.00	50.00	-32.67	-29.91

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

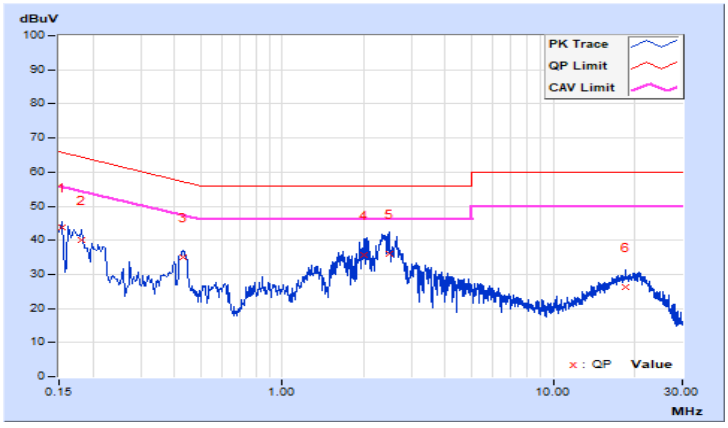


Frequency Range	150kHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	25°C, 75% RH
Tested by	Edison Lee	**Test Date**	2022/4/19

Phase Of Power : Neutral (N)										
No	**Frequency (MHz)**	**Correction Factor (dB)**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
			Q.P.	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	0.15400	10.14	33.62	26.86	43.76	37.00	65.78	55.78	-22.02	-18.78
2	0.18200	10.17	29.95	22.20	40.12	32.37	64.39	54.39	-24.27	-22.02
3	0.42915	10.26	24.69	17.58	34.95	27.84	57.27	47.27	-22.32	-19.43
4	1.99400	10.36	25.31	17.58	35.67	27.94	56.00	46.00	-20.33	-18.06
5	2.48600	10.37	25.69	16.10	36.06	26.47	56.00	46.00	-19.94	-19.53
6	18.43800	10.71	15.62	9.98	26.33	20.69	60.00	50.00	-33.67	-29.31

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



Mode C

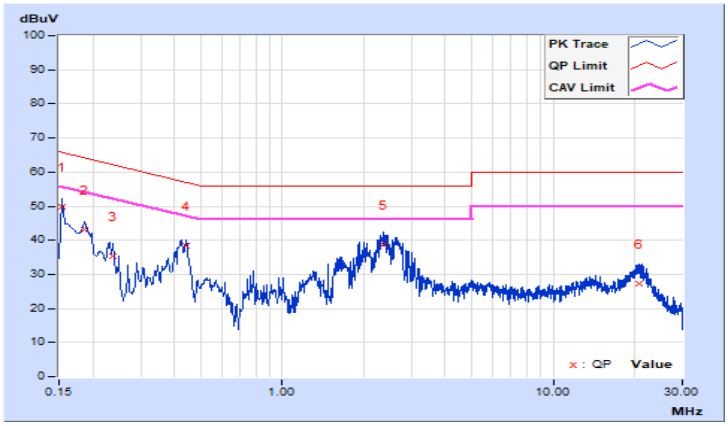
802.11b

Frequency Range	150kHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	25°C, 75% RH
Tested by	Edison Lee	**Test Date**	2022/4/19

Phase Of Power : Line (L)										
No	**Frequency (MHz)**	**Correction Factor (dB)**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
			Q.P.	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	0.15400	10.13	39.81	29.54	49.94	39.67	65.78	55.78	-15.84	-16.11
2	0.18600	10.15	32.91	25.29	43.06	35.44	64.21	54.21	-21.15	-18.77
3	0.23800	10.18	25.12	15.29	35.30	25.47	62.17	52.17	-26.87	-26.70
4	0.44200	10.24	28.17	22.21	38.41	32.45	57.02	47.02	-18.61	-14.57
5	2.36200	10.38	28.18	19.56	38.56	29.94	56.00	46.00	-17.44	-16.06
6	20.88600	10.58	16.72	9.02	27.30	19.60	60.00	50.00	-32.70	-30.40

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

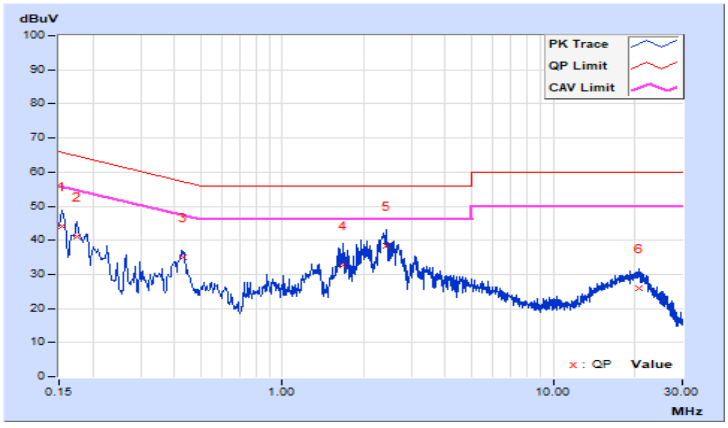


Frequency Range	150kHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	25°C, 75% RH
Tested by	Edison Lee	**Test Date**	2022/4/19

Phase Of Power : Neutral (N)										
No	**Frequency (MHz)**	**Correction Factor (dB)**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
			Q.P.	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	0.15400	10.14	33.85	26.98	43.99	37.12	65.78	55.78	-21.79	-18.66
2	0.17400	10.16	30.96	23.61	41.12	33.77	64.77	54.77	-23.65	-21.00
3	0.43199	10.26	24.91	17.27	35.17	27.53	57.21	47.21	-22.04	-19.68
4	1.68600	10.34	22.20	15.66	32.54	26.00	56.00	46.00	-23.46	-20.00
5	2.41800	10.37	28.11	19.09	38.48	29.46	56.00	46.00	-17.52	-16.54
6	20.66600	10.73	15.03	8.08	25.76	18.81	60.00	50.00	-34.24	-31.19

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

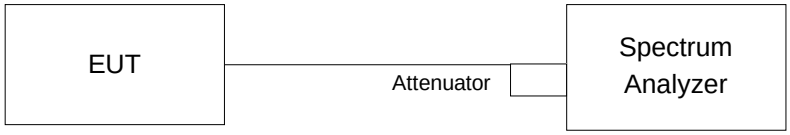


4.3 6dB Bandwidth Measurement

4.3.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 Test Setup



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

a. Set resolution bandwidth (RBW) = 100kHz.

b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = peak.

c. Trace mode = max hold.

d. Sweep = auto couple.

e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

4.3.5 Deviation fromTest Standard

No deviation.

4.3.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 Test Result

Mode A

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	7.55	8.07	7.63	8.08	0.50	Pass
6	2437	7.58	7.55	7.61	7.54	0.50	Pass
11	2462	8.12	8.10	7.61	7.14	0.50	Pass

802.11g

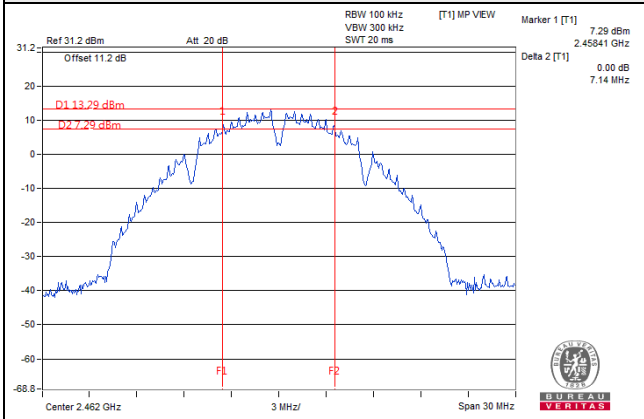
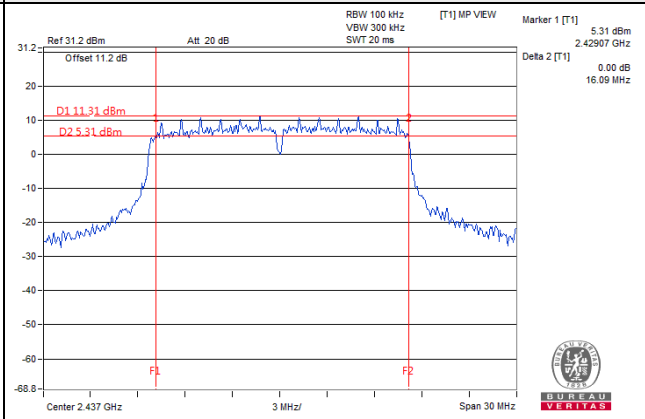
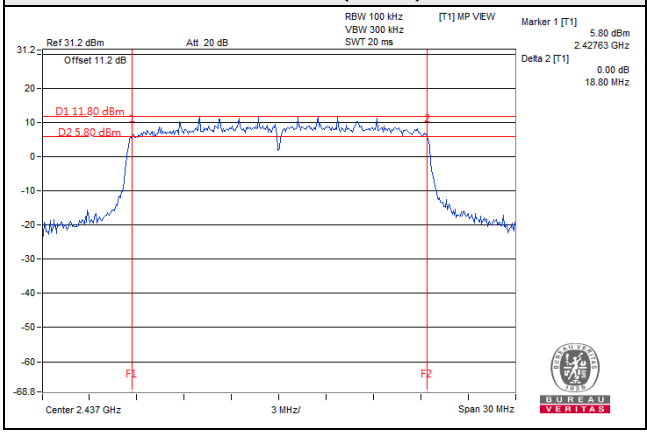
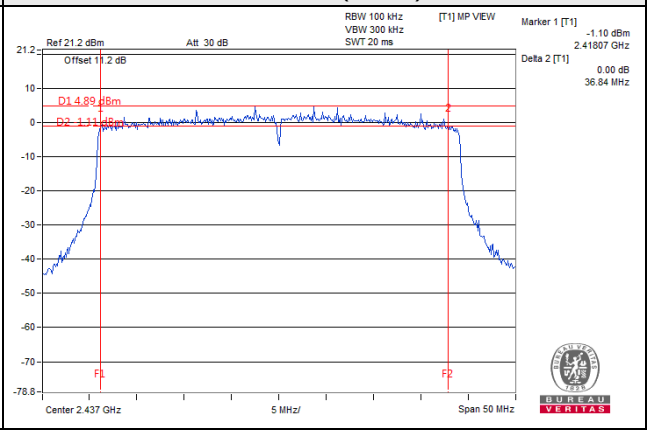
Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	16.41	16.34	16.40	16.39	0.50	Pass
6	2437	16.39	16.09	16.33	16.37	0.50	Pass
11	2462	16.15	16.37	16.39	16.41	0.50	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	18.97	18.90	18.91	18.97	0.50	Pass
6	2437	18.92	18.80	18.81	18.85	0.50	Pass
11	2462	18.83	18.96	18.89	18.95	0.50	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
3	2422	37.78	37.95	37.94	37.99	0.50	Pass
6	2437	37.58	37.75	36.84	37.86	0.50	Pass
9	2452	37.87	37.04	38.06	37.41	0.50	Pass

Spectrum Plot of Worst Value	
802.11b	802.11g
	
802.11ax (HE20)	802.11ax (HE40)
	

Mode B

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	7.60	7.63	7.19	8.12	0.50	Pass
6	2437	7.08	7.57	8.07	7.10	0.50	Pass
11	2462	7.65	8.01	7.61	8.08	0.50	Pass

802.11g

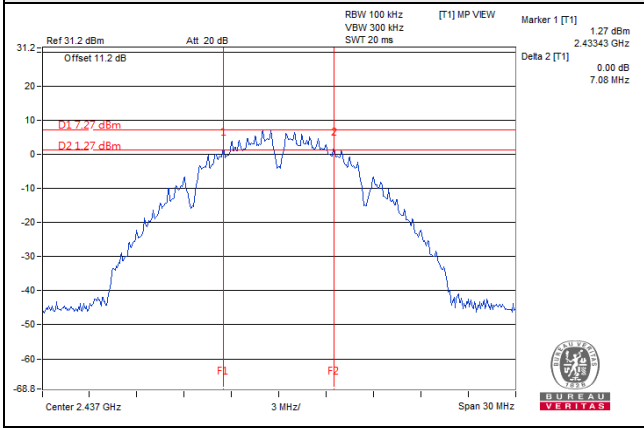
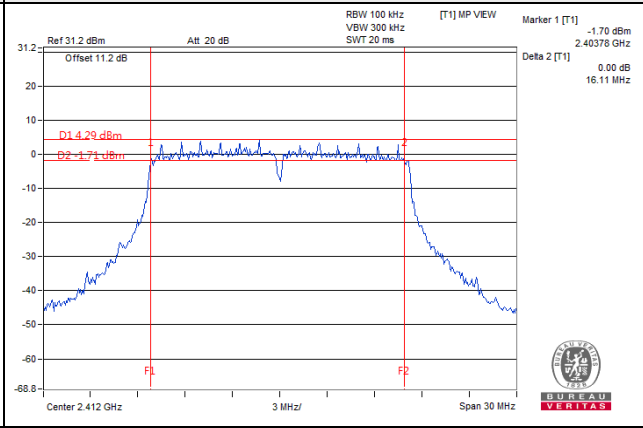
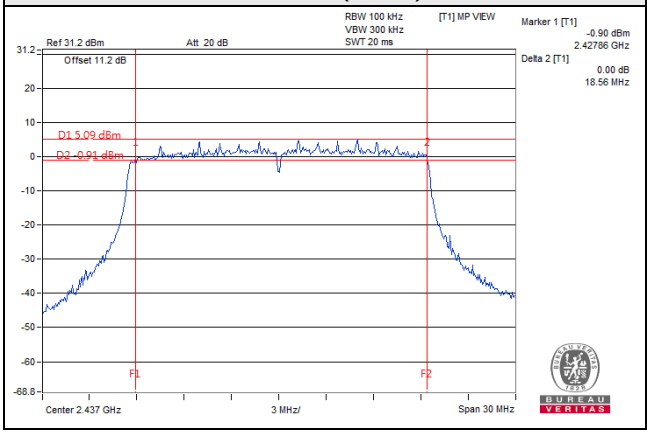
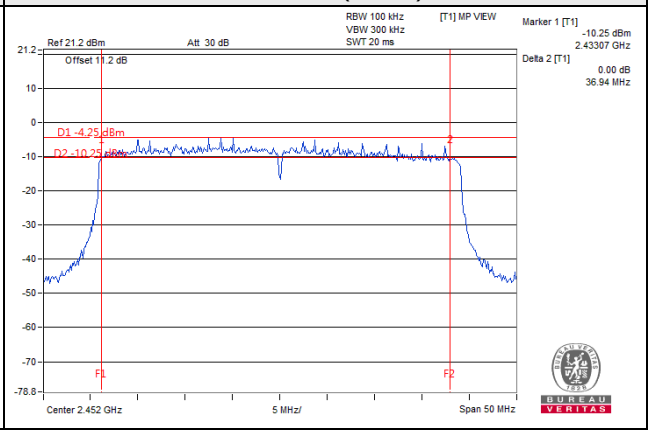
Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	16.41	16.11	16.41	16.40	0.50	Pass
6	2437	16.38	16.12	16.36	16.36	0.50	Pass
11	2462	16.37	16.36	16.41	16.41	0.50	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	18.74	18.92	18.95	18.94	0.50	Pass
6	2437	18.91	18.56	18.82	18.72	0.50	Pass
11	2462	19.01	18.84	18.91	18.85	0.50	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
3	2422	37.61	38.00	38.01	37.95	0.50	Pass
6	2437	37.65	37.10	37.26	37.54	0.50	Pass
9	2452	37.97	37.84	37.77	36.94	0.50	Pass

Spectrum Plot of Worst Value	
802.11b	802.11g
	
802.11ax (HE20)	802.11ax (HE40)
	

Mode C

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	7.59	7.59	8.10	7.09	0.50	Pass
6	2437	8.07	8.08	7.09	7.59	0.50	Pass
11	2462	7.53	7.13	8.06	7.59	0.50	Pass

802.11g

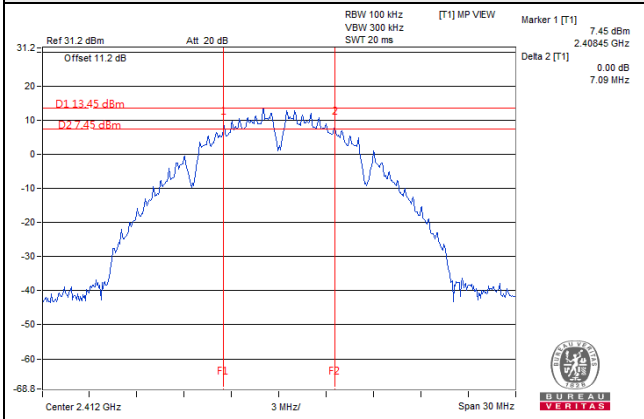
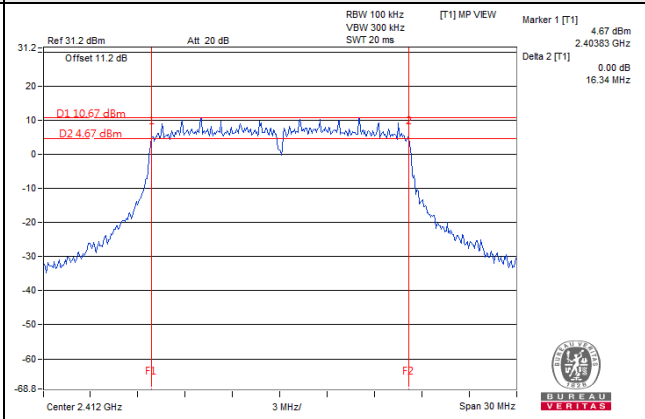
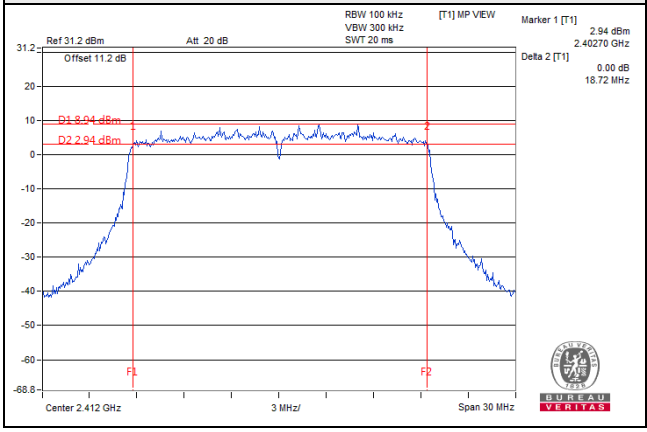
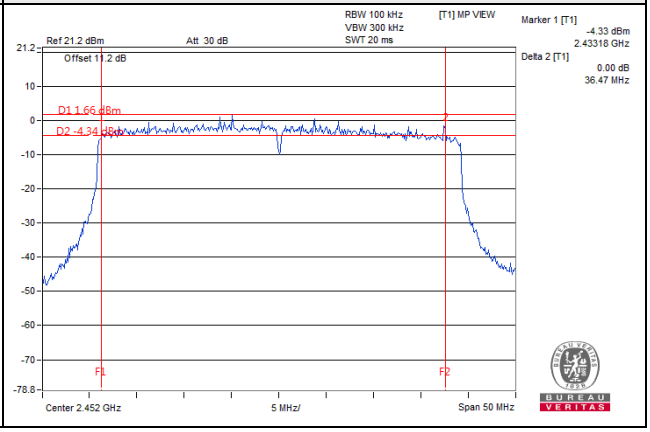
Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	16.35	16.35	16.34	16.36	0.50	Pass
6	2437	16.36	16.35	16.36	16.36	0.50	Pass
11	2462	16.38	16.35	16.39	16.38	0.50	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	18.72	18.82	18.92	18.89	0.50	Pass
6	2437	18.76	18.95	18.82	18.91	0.50	Pass
11	2462	18.86	18.88	18.81	18.98	0.50	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
3	2422	37.93	38.05	37.85	37.93	0.50	Pass
6	2437	38.06	37.09	37.89	38.00	0.50	Pass
9	2452	37.83	36.47	37.72	37.38	0.50	Pass

Spectrum Plot of Worst Value	
802.11b	802.11g
	
802.11ax (HE20)	802.11ax (HE40)
	

4.4 Conducted Output Power Measurement

4.4.1 Limits of Conducted Output Power Measurement

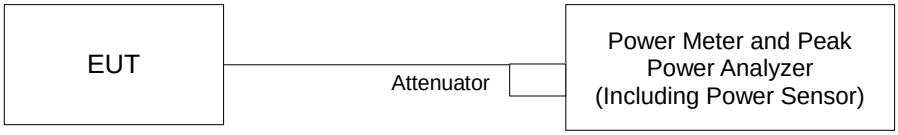
For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

Per KDB 662911 D01 Multiple Transmitter Output Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedures

Average power sensor was used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as item 4.3.6.